

Exploring the relationship between psychological capital and work engagement

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Key words

psychological capital, work engagement, hope, resilience, efficacy, optimism, positive psychology, positive organisational behaviour

Abstract

In recent years, employees' psychological connection with their work environment has gained importance in organisations. In order to face the economic challenges and to compete effectively in the global market, companies are under pressure to recruit and retain employees who are willing and able to meet organisational needs and who will invest themselves completely in their roles. Organisations need individuals who are energetic, dedicated and proactive, i.e. people who are engaged in their work.

Research over the past decade has indicated that work engagement results in better job performance, client satisfaction as well as improved financial returns. Studies have furthermore indicated that Psychological Capital (PsyCap), consisting of the four constructs: hope, efficacy, resilience and optimism, has the ability to enhance success in the work environment and that it can be a predictor of work engagement. PsyCap has been found to be a state-like construct, thus open to development and enhancement, therefore providing organisations the opportunity to improve the levels of PsyCap in their employees, which will in turn, result in increased levels of work engagement.

The focus of this study is to ascertain what the relationships between PsyCap levels and work engagement at a poultry hatchery in the South African context are. Furthermore, to establish whether PsyCap can predict work engagement.

The empirical findings were obtained by means of a quantitative research method. Self-report questionnaires were distributed to employees at a poultry hatchery in the North West Province and the high return rate of 91% increased the validity of the study. The questionnaires measured the levels of PsyCap and work engagement of the participants and statistical analysis of the data indicated that there is a positive correlation between PsyCap and work engagement and that PsyCap can predict work engagement. These findings are consistent with previous research in this regard and adds to the growing body of knowledge in the field of Positive Organisational Behaviour. The study posit recommendations for future research as well as recommendations to management regarding enhancing levels of PsyCap in their employees.

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1 Chapter 1: Introduction and orientation to the study

1.1 Introduction

There can be no doubt that the current economic climate in South Africa, combined with job uncertainty, rising prices of commodities and an increase in socio-social problems, have a negative impact on the mind set of employees. Thus it becomes unavoidable that the main stream employee experiences a host of negative emotions such as pessimism, depression and hopelessness. In turn, these negative attitudes have a snow ball effect on the work place and employees' outputs. The degree of work engagement suffers as a result of their despair and melancholy. According to Luthans, Van Wyk and Walumbwa (2004:512) countries worldwide have to balance fear and despair with hope and opportunity, and South Africa is one of the best examples where organisational leaders are subjected to this balancing act. Apart from the challenges mentioned earlier, South Africa has to deal with post-apartheid consequences, such as ethnic and language diversity, affirmative action, conflict relating to labour relations and the gap between citizens with regards to income, education and standard of living (Luthans *et al.*, 2004:514).

The poultry industry in South Africa has its own unique set of challenges. It is the largest segment of the agricultural sector and contributes more than 16% of its share of GDP. Approximately 108 000 people are directly and indirectly employed in this sector (Bolton, 2015:17). This particular industry is under pressure to compete in global markets, as the current supply of chickens is not adequate to satisfy the demand. This results in supplementing the shortfall by cheap imports from other countries, e.g. United States of America. Although South African poultry farmers are efficient, high feeding costs, rising electricity tariffs and other expenses cause South African farmers to be less competitive (Bolton, 2015:17). Continuous weakening of the Rand will furthermore increase the cost of imported inputs and equipment, which will expand the barriers to expansion and entry to the market (Bolton, 2015:18).

The abovementioned challenges will necessitate organisations in the poultry industry to employ people who are up for the challenge – *vis-à-vis* employees that are dedicated to their work, optimistic and mentally prepared for the challenges. In other words employees that have high levels of work engagement.

Work engagement is a work-related state which is characterised by a positive attitude, high levels of energy and commitment to work, which result in optimal work performance (Bakker & Demerouti, 2007:309). In order for businesses to step up to the posited challenges in the construction industry and to sustain performance, investment in human capital should receive the necessary attention it deserves.

Human capital, which entail ‘developing and managing employees’ knowledge, experiences, skills and expertise’ is regarded as a key factor for success in obtaining a competitive advantage in any industry (Luthans, Luthans, & Luthans, 2004:45). Managers in today’s challenging environment realise that economic capital alone is not sufficient to ensure sustained job performance and work engagement and that there is a significant positive impact when the value of human capital correlates with the corporate strategy (Luthans *et al.*, 2004:45). The value of social capital, which refers to elements of trust, relationships and networks, are also recognised as a vital key to ensure success in the work place (Luthans *et al.*, 2004:45).

In reviewing literature, it has become evident that a new type of capital, namely psychological capital (PsyCap), has been identified as having a positive influence on a person’s general attitude, which leads to a positive work attitude. PsyCap comprise of four elements, namely: hope, efficacy, resilience and optimism (HERO) as determined by Luthans (2002a:696). Figure 1 depicts the expanding capital deemed necessary for a competitive advantage.

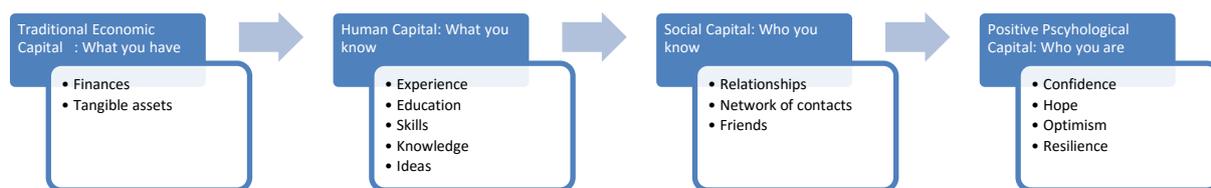


Figure 1.1: Expanding capital for competitive advantage

Source: Luthans, Luthans, *et al.* (2004)

Fred Luthans (2002a:696) states that a new, positive approach to organisational behaviour, which stems from a positive psychological movement in the 1990s, seems to be relevant to the workplace. This movement focuses not on ‘what is wrong with people’, but rather on ‘identifying and nurturing their strongest qualities, what they own and are best at, and helping them to find niches in which they can best live out these strengths.’

Research done by Avey, Wernsing and Luthans (2008:48) found that employees’ positivity have a direct impact on their work environment. Specifically it was found that PsyCap, which finds its foundation in Positive Organisational Behaviour (POB), was related to positive emotions, which in turn positively impacted on work engagement and behaviour. POB is defined as ‘the study and application of positively orientated human resource strengths and psychological capacities that can be measured, developed and effectively managed for performance improvement in today’s workplace (Luthans, 2002b:59). Therefore it can be deduced that, by investing in an employee’s psychological capital, an investment is made in his/her work performance and could increase work engagement and personal growth.

Research conducted by De Waal and Pienaar (2013:2) indicated that investing in human capital is vital in order to ensure an organisation’s success and sustainability and that POB constructs should be awarded the necessary attention. According to Youssef and Luthans (2007:775), work engagement is aligned with POB and employees who are engaged in their work use elements of PsyCap to assist them in coping with the challenges in the work environment. Luthans, Youssef and Avolio (2007:39) are of the opinion that the positive psychology movement with specific application in the workplace plays a valuable role in providing a solid platform for PsyCap and the development thereof

and investing in psychological capacities might provide organisations with the competitive advantage through their employees.

The following section will provide a short definition of each of the main constructs of this research, namely PsyCap and work engagement.

1.2. Defining the constructs

As mentioned previously, PsyCap consists of hope, efficacy, resilience and optimism. Hope is defined as “a positive motivational state that is based on an inter-actively derived sense of successful (a) agency (goal-directed energy), and (b) pathways (planning to meet goals)” (Snyder, 2002:250).

Stajkovic and Luthans (1998) as cited by Larson and Luthans (2006:80) define efficacy as “an individual’s convictions (or confidence) about his or her abilities to mobilize the motivation, cognitive resources and courses of action needed to successfully execute a specific task within a given context”. A highly efficacious person will most probably choose tasks which are challenging and will persevere under difficult conditions (Larson & Luthans, 2006:80).

Resilience is defined as “the positive psychological capacity to rebound, to ‘bounce back’ from adversity, uncertainty, conflict, failure or even positive change, progress and increased responsibility (Luthans, 2002a:702). Coutu (2002) as cited by Larson and Luthans (2006:82) found that elements of resilience include “a staunch acceptance of reality; a deep belief, often buttressed by strongly held values, that life is meaningful; and an uncanny ability to improvise”.

According to Seckinger, Langerak, Mishra and Mishra (2010:33) being optimistic is to be positive in each circumstance whilst expecting the best outcomes. Scheier and Carver (1985:219) define optimistic people as “those who expect good things to happen to them” whilst pessimists are seen as “those who expect bad things to happen to them”.

Work engagement is defined by Schaufeli, Salanova, Gonzalez-Roma and Bakker (2002:74) as “a positive, fulfilling, work-related state of mind that is characterised by vigour, dedication and absorption”. Vigour contains elements of high energy levels, mental resilience and conscientiousness; dedication refers to having a sense of pride, inspiration and enthusiasm towards work and absorption contains elements of deep

engrossment in one's work and finding it difficult to detach oneself from work (Schaufeli *et al.*, 2002a:75).

1.3. Problem statement

Field and Louw (2012:4) indicated in their research that there was a significant shift in focus over the past decades regarding safety and wellbeing of employees. Where the focus was on workplace safety in the 1930s, it moved to a focus on physical as well as psychological wellbeing in the 1950s. In 1970, the World Health Organisation promoted wellness within organisations and research stemming from this focus indicated that there is a correlation between employee wellness and productivity. In turn this encouraged employers to incorporate aspects of psychological wellbeing in their health interventions.

Research conducted by Sieberhagen, Pienaar and Els (2011:3) concluded that organisations seldom realise to which extent employee wellness impact on the organisation's wellbeing and productivity. Dhanesar and Hales (1994) as cited by Sieberhagen *et al.* (2011:3) state that investment in employee wellness reaps several benefits *inter alia* lower absenteeism, fewer accidents and lower staff turnover.

As work engagement is one of the constructs discussed in this study, it is important to note that research by Maslach, Schaufeli and Leiter (2001:416) indicates that engagement with work is a complex relationship and is a direct result of an employee's wellbeing in a specific organisation.

As mentioned in the previous section, to be able to address the challenges in the poultry industry, employees should have a positive frame of mind and have a high degree of work engagement. PsyCap elements are all positive and research has furthermore indicated that the presence of the PsyCap elements correlates with work engagement.

This study aimed to investigate the relationship between PsyCap and work engagement in a South African poultry hatchery. The problem statement therefore is: "What is the relationship between PsyCap and Work Engagement in the South African poultry hatchery industry?"

1.4. Objectives

The aim of this study is to contribute to the existing body of knowledge on positive constructs by determining the relationship between psychological capital and work engagement amongst a sample in the poultry industry. With the set objective in mind, the research questions are:

- What are the relationships between PsyCap levels and work engagement in a South African poultry hatchery?
- Is it possible to predict any of the variables in the study? For example, can PsyCap predict work engagement?

Secondary objectives of the study are:

- examining the literature on PsyCap and work engagement; and
- providing knowledge to support the poultry hatchery environment in selecting and developing employees who are engaged in their work as well as implementing preventative measures to prevent a decline in work engagement.

1.5. Research design

A quantitative research design was utilised during this study in order to address the research objectives as posited above. Quantitative research is one of the two types of research approaches used in social research and it can be distinguished from qualitative research in that it make use of techniques whereby data is converted to numerical forms and subject to statistical analyses (Babbie, 2010:422). Babbie (2010) furthermore states that quantification enables observations to be more explicit, easier to combine, compare and summarise.

Mouton (2005:86) states that a literature review is necessary in order to ascertain what has been done in any particular study field. The relevant definitions, different theories or models, existing data and measuring instruments relating to the field of study are examined in a literature study. Welman, Kruger and Mitchell (2009:38) state that a literature review is of great value as it provides important information and background information on the topic of study; it avoids the duplication of any previous research; it

provides insights regarding gaps in previous studies and it could also be a source of motivation for the current study to be undertaken.

The following databases have been and will be consulted:

- catalogue of books from the Ferdinand Postma Library (Potchefstroom Campus);
- journals;
- research reports and dissertations;
- Internet publications; and
- North-West University's online library.

From the outset, it seemed that there were substantial reference material available for conducting research on this specific topic.

The empirical study was carried out in a poultry hatchery in the North West Province. A nonprobability convenience sample was used in this study. This involved selecting respondents on the basis of their availability and willingness to participate in this study.

The data collection consists of a biographical data sheet and two scales. The biographical information includes participants' gender, age, marital status, years working within the organisation and highest qualification attained.

The first scale, namely the PsyCap Questionnaire (PCQ) (Luthans *et al.*, 2007), measured PsyCap and comprised four subscales namely hope, efficacy, resilience and optimism. The PCQ is a self-report questionnaire and has 24 items which is scored on a Likert scale.

The Utrecht Work Engagement Scale (UWES) (Schaufeli & Bakker, 2002b) was used to measure work engagement. The UWES is a self-report questionnaire and consists of 17 items. The UWES comprises three subscales namely vigour, dedication and absorption and is scored on a Likert scale.

The Statistical Package for the Social Sciences program (SPSS version 2.23) was used to carry out the statistical analysis. Descriptive statistics i.e. means, medians, standard deviations and skewness will be used to describe the data. Spearman's correlation coefficients will be used to specify the relationship between PsyCap and work

engagement and regression analysis will be conducted to determine whether PsyCap and work engagement hold predictive values.

The questionnaires were handed out in hard copy to employees of the participating company. Participants were informed of their voluntary participation and they were provided with clarity on the research. Anonymity and confidentiality throughout the process were guaranteed and maintained.

1.6. Overview

The study consists of the following chapters:

Chapter 1: Introduction

This chapter provides an introduction to the study. It highlights the problem statement and post the research questions and objectives and explains the research methodology.

Chapter 2: Literature review

This chapter contains a literature review, based on the views of different sources related to this specific field of study. The relevant theories and practices are to be explained, taking into account books, articles, journals and other sources. Specifically the elements of PsyCap namely hope, efficacy, resilience and optimism as well as work engagement are explained. The relationship between the variables is investigated.

Chapter 3: Methodology

The research methodology employed in this study is described in Chapter 3.

Chapter 4: Results

This chapter discuss the results and findings of the empirical research.

Chapter 5: Conclusion

In this chapter the focus is on the recommendations which stem from the results of the study, addressing the limitations of the study as well as what the contribution of the study is to the current body of knowledge.

1.7. Significance of the study

This study aimed to expand the current body of knowledge of PsyCap and the relationship it may have with work engagement in the workplace, particularly in the poultry hatchery environment in South Africa. In view of global and national economic difficulties, it was of great importance to reflect on how positive behaviour in the workplace could be beneficial. The results of this study have the potential for the organisation to select and develop employees who are engaged in this specific work environment. The benefits of this knowledge could furthermore equip staff in the Human Resources Department to develop human-resource practices which focus on the development of employees' level of PsyCap and subsequent work engagement in the organisation through interventions and specific training programmes.

1.8. Conclusion

This first chapter provided a general overview of the study. The orientation and problem statement indicated that the current economic challenges and the impact thereof on employees necessitated a shift in the approach by managers and leaders in the construction sector in order to effectively and efficiently increase human and psychological capital. The concepts of PsyCap and work engagement were briefly discussed and the research objectives stated. This chapter also touched on the research methodology and the significance of the study.

Chapter 2 follows with a theoretical overview of the main constructs and the relationship between the variables.

2 Chapter 2: A theoretical overview of psychological capital and its relationship with work engagement

2.1. Introduction

As mentioned in Chapter 1, the dire economic climate worldwide and variety of problems in South Africa set the scene for a series of negative psychological attitudes amongst people. Depression and negativity have found to impact directly on a person's emotional wellbeing, which in turn impacts on his/her work and social environment.

Furthermore, organisations are under immense pressure to increase their profit margins and to maintain sustainability. Therefore it is crucial that employees not only have the necessary skills and knowledge, but are also equipped to deal with stress, disappointment and challenges in the workplace in order to meet the expectations of the organisation. Employees should therefore portray high levels of work engagement.

Chapter 1 also highlighted the fact that PsyCap, which comprise of hope, efficacy, resilience and optimism, has a positive influence on a person's general attitude, which in turn leads to a positive work attitude. The deduction is thus made that an increase in PsyCap leads to an increase in organisational outputs such as job satisfaction and work engagement.

The purpose of this chapter is to provide a theoretical overview of the main constructs, namely PsyCap and work engagement and the relationship between the variables. To understand these constructs in context it is necessary to provide background information relevant to the development of PsyCap. The following section will therefore address the concepts of positive psychology and organisational behaviour. Thereafter, PsyCap and its four elements – hope, efficacy, resilience and optimism – will be discussed.

2.2. Positive psychology and organisational behaviour

Luthans (2002a:696) expressed his longing and search for “a theory and research-driven new perspective and approach to old Organisational Behaviour (OB) concepts and some new and exciting core concepts such as confidence, hope, optimism, happiness and resiliency”. He found his ‘eureka’ at a Positive Psychology Conference held in 1999 where the champion of the positive psychology movement, Martin Seligman, shared his

epiphany. Seligman (Seligman & Csikzentmihalyi, 2000:6) stated that his daughter on occasion said to him: “From the time I was three to the time I was five, I was a whiner. I whined every day. When I turned five, I decided not to whine anymore. That was the hardest thing I’ve ever done. And if I can stop whining, you can stop being such a grouch”. It then occurred to him that it is not just about fixing what is wrong with people, but to focus on ‘identifying and nurturing their strongest qualities, what they own and are best at, and helping them find niches in which they can best live out these strengths’.

The focus and mission of psychology has evolved over the last couple of decades – in the 1940s the focus was aimed at three missions: to cure the mentally ill, to help people improve their quality of life and to nurture and identify talent. After World War II the focus became fixed on a more negative approach, i.e. pathologies and the dysfunctions of people (Seligman & Csikszentmihalyi, 2000:6; Luthans, 2002a:697). This led to a perception of doubt and suspicion towards psychology.

Breakthrough work was done by Martin Seligman, Ed Diener, Christopher Peterson and Rick Snyder in the 2000’s resulting in the establishment of the research-orientated theory. This theory shifted the emphasis from that which is wrong with people to that which is right with people; to rather focus on people’s strengths than their weaknesses; to enhance resilience and not exploit vulnerability and to develop wellness and prosperity (Luthans, 2002a:697).

Fred Luthans (Luthans, 2002a:703) light-heartedly stated that organisations should “catch employees doing something right to reinforce them, rather than catching them doing something wrong to punish them”.

Research done by Luthans and Jensen (2002:305) has indicated that there is considerable value in a positive approach in the workplace and therefore 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, 2002b:59). Important to note is that this POB approach offers positive psychological capacities such as hope, efficacy, resilience and optimism, *vis-à-vis* PsyCap (Luthans & Jensen, 2002:305; Youssef-Morgan, 2014:132).

Youssef and Luthans (2007:775) posit certain criteria for a psychological resource capacity to be included in the abovementioned definition of POB: “(a) the capacity must be theory and research based and validly measurable, and (b) the capacity must also be ‘state-like’ (i.e. open to change and development) and have a demonstrated performance impact”. The latter criteria distinguish the capacities in POB from other positive ‘states’ in that the POB capacities are more stable and do not change with momentary situations as opposed to traditionally ‘states’ which are very changeable, such as moods (Youssef & Luthans, 2007:776).

The deduction can therefore be made that PsyCap as capacity of POB are of more permanent value to an organisation and that it can be enhanced and nurtured through interventions and programmes.

The previous section dealt with the development and context of PsyCap. The following section will elaborate on PsyCap and its four elements: hope, efficacy, resilience and optimism.

2.3. Psychological capital (PsyCap)

PsyCap is defined as “an individual’s positive psychological state of development and it is characterised by: (1) having confidence (efficacy) to take on and put in the necessary effort to succeed at challenging tasks; (2) making a positive contribution (optimism) about succeeding now and in the future; (3) persevering towards goals, and when necessary, redirecting paths to goals (hope) in order to succeed, and (4) when beset by problems and adversity, sustaining and bouncing back and even beyond (resilience) to attain success” (Luthans *et al.*, 2007:3).

Luthans *et al.* (2004:46) state that PsyCap encompasses more than human and social capital and foremost consists of ‘who you are’ rather than ‘what or who you know’. A similar view is expressed by Luthans, Luthans and Avey (2014:191) who state that PsyCap goes beyond economic capital (what you have), social capital (who you know) and what you know (human capital). It is rather a matter of ‘who you are’ and ‘what you have become’.

Luthans (2002a:698) posit that there are certain criteria which must be met for a resource to be defined as PsyCap, namely theory and research-based, be validly measurable, state-like (therefore open to change and development) and have performance impact. Luthans (2002a:699) found that the four resources which met these criteria best were hope, efficacy, resilience and optimism.

Luthans, Avey, Avolio and Peterson (2010:43) propose that the positions of the state and trait distinction on a continuum would be depicted as follows:

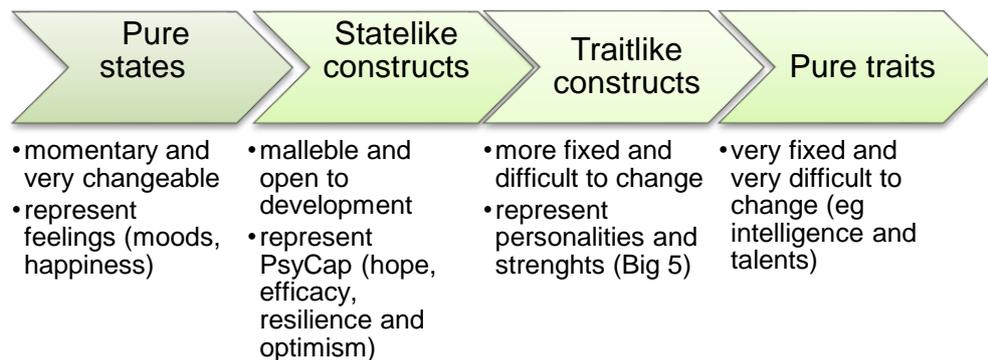


Figure 2.1: State-trait continuum

Source: Luthans, Avey, Avolio and Peterson (2010)

From the above it is deduced that PsyCap and the four constructs are more stable than pure states (e.g. moods and emotions) but not as fixed as personality characteristics and talents. Furthermore, it follows that state-like constructs can be developed and enhanced through training and other interventions (Luthans *et al.*, 2010:44; Luthans *et al.*, 2014:194).

Luthans and Youssef (2004:152) posit the dimensions of PsyCap as follows in Figure 2.2.

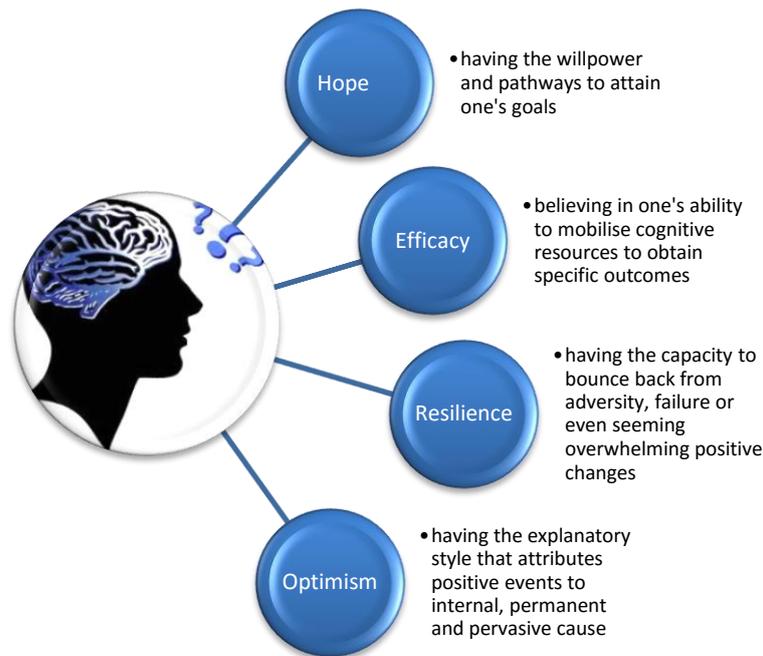


Figure 2.2: Dimensions of positive PsyCap

Source: Luthans and Youssef (2004)

Each of these dimensions will be discussed in the sub-sections to follow.

2.3.1. Hope

Throughout history, hope has been portrayed as a positive and negative attribute and is often used in everyday language, e.g. 'hoping for the best' and 'keep your hopes up' (Luthans & Jensen 2002:306). Slocum and Hellriegel (2011:87) posit a simple definition for hope, namely *hope = mental willpower + way-power to achieve goals*. However, hope has taken on a more defined and theoretical meaning when in 1991, Snyder defined hope as "a positive motivational state that is based on an interactively derived sense of successful (a) agency (goal-directed energy), and (b) pathways (planning to meet goals)" (Snyder, 2002:250). Snyder states that agency and pathways, or simply put "the will and the way" are interrelated and operate in a combined process (Luthans & Jensen, 2002:306).

Snyder (2002:251) posits that although the components of agency and pathways are complimentary, they are not synonymous and each of these components indicates different characteristics of the thought process. Neither of these two components on its

own is sufficient to constitute hope as their intentions differ, as set out in the previous paragraphs.

Research by Nel and Boshoff (2014:2) led to their conclusion that hope facilitates a person's ability to find an alternative path when faced with challenges in order to obtain his/her goals, and therefore underpin Snyder's definition of hope, which contains the elements of agency and pathways. In order to understand the relationship between agency and pathways, Nel and Boshoff (2014:2) as well as Luthans and Jensen (2002:306) explain the following: "pathways thinking focuses on a person's ability to find an alternative way to reach a goal when the original path has become obstructed". Nel and Boshoff (2014:2) posit that high-hope people have more confidence in finding an alternative route and are more decisive in their actions. Agency thinking refers to having the motivation and desire to find an alternative route to reach a goal and 'to stick to it' when challenges arise (Luthans & Jensen, 2002:306). In challenging times when stress levels are high and excellent work performance is required, it is of critical importance that employees display a heightened sense of both willpower and way-power (Luthans & Jensen, 2002:307).

Luthans *et al.* (2004:516) state that, in an organisational setting, the lack of hope can have a destructive effect and therefore it is crucial that leaders and managers enhance and develop a sense of hope among their employees. Luthans (2002a:701) is of the opinion that hope is the most unique POB capacity and has found in research that hope has a positive impact on performance in the workplace, academic environment as well as athletic performance.

Nel and Boshoff (2014:2) state that research done by Peterson and Luthans (2003) and Youssef (2004) have indicated that employees' levels of hope positively correlate to *inter alia* job performance, job satisfaction, organisational commitment, organisational profitability and job retention. From these results it is clear that the level of hope in an employee plays a vital role in job performance and the level of engagement with work.

2.3.2. Efficacy

Bandura (1997:42) defines efficacy as "an individual's perceptual judgement or belief of how well one can execute courses of action required to deal with prospective situations" and furthermore state that "it is not a decontextualised trait". Stajkovic and Luthans

(1998:66) define efficacy as an individual's ability to activate his/her motivation and internal resources to execute a specific task, stemming from the conviction and belief of the individual that he/ she has the ability to do what is necessary.

Research done by Bandura (1986) as cited by Luthans (2002a:700) indicate that the more confidence a person has, the more that person will welcome challenges, invest a lot of time and energy in completing the task and will persevere when obstacles are encountered. Avey *et al.* (2008:53) found that, with reference to the definition and elements of hope, efficacy can be interpreted as "the conviction and belief in one's ability to (a) generate multiple pathways, (b) take actions towards the goal and (c) ultimately be successful in goal attainment".

With regards to the impact/results of efficacy, Luthans (2002b:60) found that efficacy leads to *inter alia* positive choices, motivational effort, perseverance, positive thought patterns and resistance to stress. Luthans (2002b:60) furthermore states that high levels of efficacy results in high levels of goal setting, performance and achievement. This is confirmed in research done by Stander, Diedericks, Mostert and de Beer (2015:3) who found that highly efficacious individuals are committed to their goals, show strong perseverance and confidence in challenging circumstances and are focused on acquiring knowledge and new skills to overcome their shortcomings. On the other hand, individuals with low efficacy tend to avoid challenging tasks, are non-committal and would rather focus on their own negative feelings when facing adversity than proceed with the task at hand.

In POB, efficacy is said to be treated as a state which can be managed and developed and can therefore be enhanced for people in all jobs (Luthans, 2002b:61). Bandura's powerful statement in 1986, as cited by Luthans (2002b:59) makes it clear that efficacy is crucial for a positive mind-set: "Unless people believe that they can produce desired effects and forestall undesired ones by their actions, they have little incentive to act. Whatever other factors may operate as motivators, they are rooted in the core belief that one has the power to produce desired results".

Schaufeli and Salanova (2007:145) have found that work-related efficacy correlates with work engagement as it leads to great commitment to the task at hand and the desire to spend time and energy in reaching the desired outcomes. In order to enhance efficacy, Bandura (1997) has identified four sources of efficacy development namely: task mastery,

modelling successful individuals, persuasion by respected others to be more confident and psychological/emotional wellness (Luthans *et al.*, 2010:46).

The abovementioned section clearly indicates that efficacy is pivotal for an individual to function optimally in the work environment and managers and/or supervisors should embrace the mechanisms available to enhance efficacy in employees as this will ultimately benefit the organisation.

2.3.3. Resilience

In 1936 Hans Selye created the stress model "General Adaptation Syndrome", which thoroughly explains how individuals respond to stress (Luthans, 2002a:702). He made an observation which is indicative of this specific construct's importance and relevance in POB: "it is not what happens to you that matters but how you take it" (Luthans, 2002a:702). Resilience in an individual is defined by Stewart, Reid and Mangham (1997:22) as having the ability to deal with stressful and adverse circumstances in a successful manner.

In earlier years, resilience was thought to be an extraordinary quality that only few people possess, but Masten (2001:235) posit that resilience comes "from the everyday magic of ordinary, normative human resources ... and has profound implications for promoting competence and human capital in individuals and society". In layman's terms, resilience is regarded as an individual's ability to 'bounce back' from adversity, uncertainty and conflict (Luthans, 2002a:702). Luthans *et al.* (2014:193) are of the opinion that on the one hand, hope, efficacy and optimism are the proactive constructs of PsyCap, whilst resilience, on the other hand, is more of a reactive construct on which individuals draw upon when they face adverse circumstances.

Research done by Luthans, Avolio, Avey and Norman (2007:546) has found that in adverse circumstances, resilience is enhanced by positive emotions and that individuals become more resilient each time they 'bounce back' effectively from a setback. This indicates that resilience has a state-like quality, which is a criteria of a PsyCap resource.

Regarding the correlation between resilience and performance, Luthans, Avolio, Walumba and Li (2005:269) found that there was a direct relationship between the resilience of Chinese workers and their job performance. Further research by Maddi

(1987) indicated that resilient employees retained their happy dispositions in circumstances where their company was downsizing; Larson and Luthans (2006:82) found that employees' job satisfaction was related to their resilience.

Youssef and Luthans (2007:779) are of the opinion that resilience refers to proactive and reactive measures that need to be taken when challenging situations occur. With regards to reactive measures, resilience recognises that adverse circumstances can have a destructive impact on a person and therefore a person needs to 'bounce back'. A resilient person will have the necessary insight to acknowledge such impact and will take the necessary time, energy and resources to recover from the incident. Proactively resilient individuals will also recognise adversity as an opportunity to grow and thus place a positive value on a negative situation (Youssef & Luthans, 2007:780). Their research furthermore indicated a positive correlation between employees' levels of resilience and their job satisfaction, job commitment and overall happiness.

The deduction can therefore be made that resilience, together with hope and efficacy as discussed in the previous sections, are integral to an individual's cognitive and emotional state of being and the level of these constructs has a direct impact on the level of performance in the work environment.

2.3.4. Optimism

Carver and Scheier (2002:231) state "optimists are people who expect good things to happen to them; pessimists are people who expect bad things to happen to them ... optimists differ in how they approach problems and challenges and differ in the manner and success with which they cope with adversity". In positive psychology, there are two major streams by which optimism is explained. Carver and Scheier (2002) have an expectancy perspective for their theoretical framework where Seligman (1998:4) on the other hand, uses an explanatory/attribution framework. Seligman, promoter of the positive psychology movement and a seminal source, define optimists as people who perceive negative events confounded to a specific event, something that is not their fault and beyond their control. They are unfazed by setbacks and see misfortune as challenges. Carver and Scheier (2002:232) on the other hand are of the opinion that optimism relates to the expectation that an increase in effort will result in a desirable outcome. Furthermore, they posit that, when individuals have this kind of positive expectancy, they will continue to increase effort, even when facing adverse circumstances. Pessimists on

the other hand, often lack the desire for a positive outcome in such a degree that there is no effort coming forth to reach their goal.

From this, Carver and Scheier (2002:233) deduce that optimists will fare better than pessimists in the workplace as optimists have the drive to put effort in reaching the desired outcome. An HR executive of Men's Wearhouse (a clothing business) stated that they focus on one element when hiring personnel, and that is optimism – education and experience are secondary to the levels of energy and passion displayed by their employees (Luthans & Church, 2002:57).

Luthans (2002a:698) posit that the constructs of PsyCap, and therefore optimism, relate to a positive disposition and motivation which in turn correlates with a realistic evaluation of circumstances. Peterson (2000) as cited by Luthans *et al.* (2007:547) posit that realistic optimism relates to an individual's evaluation of a situation of what can and cannot be accomplished, which in turn impacts on an individual's hope and efficacy. Therefore, optimism is a dynamic and astatic construct, *vis-à-vis* state-like, which is one of the criteria of a PsyCap resource as posited by Luthans (2002a:698).

Avey, Nimnicht and Pigeon (2010:388) are of the opinion that optimism differs from the hope construct based on its locus of control: a person may not be optimistic but still feeling hopeful, or not hopeful but feeling optimistic, assuming a high level of external locus of control. Conversely, a person with a high level of internal locus of control may be very optimistic in situations which seem to have a positive outcome, whether immediately or in the near future. Luthans and Youssef (2004:153) state that optimistic people are less susceptible to depression, feelings of guilt, self-blame and despair and are more inclined to have an enhanced self-esteem and morale.

Research done by Luthans and Youssef (2004:154) has found that optimism has also been applied in organisational settings and therefore the abovementioned attributes of optimism impacts on a person's performance in the workplace. Luthans *et al.* (2007:89) state that in favourable conditions, optimists tend to be thankful for their successes and continue to capitalise on opportunities whilst developing new skills and abilities. In adverse circumstances, optimists learn from their mistakes, identify what can and cannot be changed and therefore optimistic employees are regarded as assets to organisations as they are more equipped to deal with challenges in the workplace.

In conclusion to this section, Luthans *et al.* (2014:193) state that the result of high levels of PsyCap in individuals is most noticeable in their hopeful demeanour when establishing goals, their optimistic expectations, the confidence to succeed and embrace new challenges and the resilience to work through adversity.

The following section will discuss the relationship and correlation between work engagement and the four elements of PsyCap, as posited in this section.

2.4. Work engagement

Engagement stems from the domains of positive psychology and positive organisational behaviour, which focus on enhancing an employee's experience, and specifically positive experience in his/her work environment (Mills, Culbertson & Fullagar, 2011:519). According to Bakker, Albrecht and Leiter (2011a:4) it is of critical importance that organisations employ individuals who are "psychologically connected to their work; who are willing and able to invest themselves fully in their roles; who are proactive and committed to high quality performance standards; .who feel energetic and dedicated" as the challenges in the workplace are increasing and more are required from employees in order to meet the goals of the organisations. Research done over time suggest that engagement is directly related to crucial outcomes in organisations, e.g. job performance, client satisfaction and profits (Bakker *et al.*, 2011a:5).

Engagement is defined by Shuck and Wollard (2010:103) as the cognitive, emotional and behavioural state of an employee towards the work place. Research by Shuck (2011:2) has found employee engagement to be a source of competitive advantage at all levels as there is a direct positive correlation between levels of engagement and positive organisational outcomes. Research on the study of employee engagement has increased over the years and has undergone important changes in definition and conceptualisation, which led to two differing perspectives: the practitioner approach and the academic approach (Shuck, 2011:2).

The practitioner approach focuses on the usability of the construct and the actionable outcomes, whereas the academic approach focuses on the definition and validation of the concept and places more emphasis on the micro level (Shuck, 2011:2). Within the academic point of departure, four major approaches define the current state of employee engagement: (1) Kahn's (1990) need-satisfying approach; (2) Maslach *et al.*'s (2001)

burnout-antitheses approach; (3) Harter *et al.*'s (2002) satisfaction-engagement approach; and (4) Sak's (2006) multidimensional approach (Shuck, 2011:2).

The point of departure for this study will be Khan's need-satisfying approach, which emphasises that an employee's engagement with his/her work is an internal state of mind and being, which are affected by external factors. A short exposé of Khan's approach follows.

In 1990, Kahn defined personal engagement at work as "the harnessing of organisation members' selves to their work roles; in engagement, people employ and express themselves physically, cognitively and emotionally during role performances ... people need both self-expression and self-employment in their work lives as a matter of course" (Kahn, 1990:694). The cognitive aspect refers to working conditions within the organisation as well as the employee's perspective on management; the emotional element refers to the employee's experience of these three elements and the physical element refers to the 'physical drives' employed by the individual to carry out his/her role in the organisation (Kahn, 1990:695). When all of the three elements are present, engagement is at its strongest. Kahn furthermore states that work engagement of employees relates to an individual's experience of the work environment and the effect thereof on the individual's connectivity with the task at hand (Kahn, 1992:327).

Schaufeli *et al.* (2002:74) define work engagement as "a positive, fulfilling, work-related state of mind that is characterised by vigour, dedication and absorption ... (it) refers to a more persisted and pervasive affective-cognitive state that is not focused on any particular object, event, individual or behaviour".

The vigour component refers to a high level of energy, a strong sense of work ethic, mental resilience in the workplace, the desire to put effort and time into one's work and the ability to persevere when times become challenging (Schaufeli *et al.*, 2002:74). Othman and Nasurdin (2011:1702) describe dedicated workers as being enthusiastic about their work, are highly motivated and have a sense of pride in that which they are doing. Schaufeli *et al.* (2002:74) state that dedication is characterised by feelings of inspiration, pride and a sense of significance. The third component of engagement, absorption, is characterised as "being fully concentrated and deeply engrossed in one's work, whereby time passes quickly and one has difficulties with detaching oneself from work" (Schaufeli *et al.*, 2002:75).

Bakker and Demerouti (2007:312) developed the job demands-resources model, which positions work engagement as an antipode for burnout. This model posits two factors which impact on vigour, dedication and absorption, namely (1) job resources, and (2) job demands. According to Bakker and Demerouti (2007:312), job resources refer to physical, psychological, social and organisational aspects of the job that (a) assist in goal achievement; (b) lessen job demands; and (c) enhance personal growth and development. Job demands, on the other hand, refer to the physical, psychological, social and organisational aspects of the job that requires consistent cognitive and emotional skills and effort which could result in adverse work conditions e.g. high work pressure, an unfavourable environment and emotionally draining experiences.

Seen against this context, it can be deduced that PsyCap is regarded as a job resource as it encompasses all the necessary requirements to achieve goals and enhance personal growth by the presence of the four PsyCap constructs: hope, efficacy, resilience and optimism.

Bakker *et al.* (2011a:5) posit that employees who are engaged in their work have the ability to create their own positive feedback, which relates to appreciation, recognition and success. Since these employees perceive their work as fun and as a personal accomplishment, they describe their tiredness after a day's work as pleasant. Othman and Nasurdin (2011:1703) state that employees who are engaged in their work are more joyful, happier, experience good physical and psychological health, receive good job performance appraisals and also have the ability to engage colleagues with their enthusiasm.

Research done by Simons and Buitendach (2013:3) concur with the above findings in that there is a direct correlation between work engagement and positive organisational outcomes, such as organisational commitment, low turnover intention, good health and positive work affect. These findings are furthermore concurred by Schaufeli (2013:21) who state that work engagement relates to an employee's individual outcomes in the workplace, such as job performance, sickness and absence from work. Bakker and Demerouti (2008:215) agree with this point of view in that their research has indicated that employees who display high levels of work engagement, often experience positive emotions such as happiness, confidence and optimism; they are in a better state of health and thus better able to perform well; they are more productive as they display the ability

to create their own resources and also have the ability to transfer their positive work experiences to colleagues, thus creating increased team performance.

From the above, it can therefore be deduced that engaged employees are a valuable asset in an organisation.

Van den Heuvel, Demerouti, Schaufeli and Bakker (2010:136) posit that engaged employees are creative and productive and will not hesitate to do more than expected. As mentioned earlier, and confirmed by Van den Heuvel *et al.* (2010:137), work engagement is contagious and has the ability to influence other employees, especially in times of change and adversity. May, Gilson and Harter (2004:13) note that work engagement should be enhanced by managers as disengagement with one's work often result in a lack of commitment and energy, and enhanced levels of work engagement promotes optimal engagement with one's work environment.

Research done by Rothman and Rothman (2010:3) posit that engagement, which includes elements of energy, involvement and efficacy, is the direct opposite of burnout, which consists of elements such as exhaustion, cynicism and low efficacy. Maslach and Leiter (1997) as cited by Simons and Buitendach (2013:3) place burnout and work engagement on opposite poles of a continuum of well-being in the workplace. However, research done by Schaufeli *et al.* (2002:87) found that engagement and burnout are only to a certain extent antipodes, i.e. both constructs correlates negatively to a moderate extent. These contradictory opinions are an indication of the different points of view, which stem from the four different approaches mentioned in the beginning of this section. As stated, the approach of Khan will be used as point of departure in this study.

2.5. Relationship between variables

As mentioned in the previous section, research has indicated that the presence of PsyCap elements strongly correlates with organisational outcomes. Avey, Reichard, Luthans and Mhatre (2011:149) conducted a meta-analysis of the impact of positive PsyCap on employee attitudes, behaviours and performance. The results provided evidence-based support that PsyCap plays an important role in predicting the attitudes and behaviours of employees and that PsyCap has a strong and significant correlation with employee performance and other desirable organisational outcomes. In a study conducted by De Waal and Pienaar (2013:7) it was found that there was a positive relationship between

PsyCap and work engagement and their results concurred with research done by Cordery (2007) which found that work engagement is a strong predictor of hope, efficacy and optimism. Bakker and Demerouti (2008:221) posit that engaged individuals are “willing to go the extra mile” and that the presence of elements such as vigour and dedication constitutes high levels of work engagement.

Sweetman and Luthans (2010:58) propose the following relation of the four PsyCap constructs and work engagement:

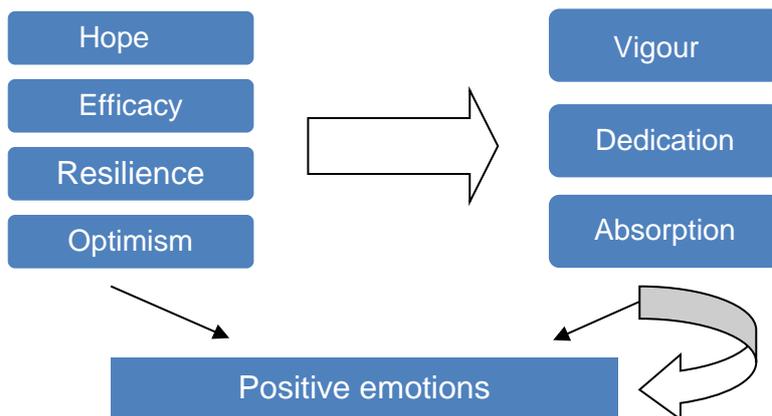


Figure 2.3: Proposed conceptual model relating PsyCap to work engagement through positive emotions

Source: Sweetman and Luthans (2010)

Regarding the relationship between efficacy and work engagement, Sweetman and Luthans (2010:59) are of the opinion that efficacy relates directly to each of the three components of work engagement: vigour, dedication and absorption, as research has indicated that high levels of efficacy increases the levels of energy and effort an employee exhibits when completing a task, as well as resulting in an employee becoming so engrossed in his/her work that he/she forgets about time.

Regarding the construct of optimism and its relationship with work engagement, Sweetman and Luthans (2010:60) propose that optimism relates directly to the components of dedication and absorption of work engagement, as an employee with high levels of optimism feels in control during task management and this serves as a buffer against job demands. The deduction can thus be made that, since the optimist expects a positive outcome, he/she puts effort into the task, which in turn leads to higher levels of engagement with the task at hand.

Hope and work engagement, and specifically the components of vigour and dedication, are directly related, according to Sweetman and Luthans (2010:60). They define hope as “the motivated, persistent pursuit of goals and proactively determined pathways to goals” and is perceived to be an antecedent to vigour, as hope enables the energy to be determined to meet a goal; to stay motivated in adverse circumstances and to stay focused and dedicated. Furthermore, hope could be regarded as a requirement for work engagement, as the absence of hope results in no willpower to accept challenges and no way-power to find a path to achieve the necessary goals (Sweetman & Luthans, 2010:61).

Sweetman and Luthans (2010:61) posit that the third construct of PsyCap, namely resilience, relates directly to all three components of work engagement: vigour, dedication and absorption. Resilience comes into operation when the individual are motivated by his/her work engagement and thus exhibiting the vigour of persistence and perseverance. According to Sweetman and Luthans (2010:62), resilience resources furthermore produce a ‘buffering’ effect, whereby an individual continues to be engaged with his/her work, even when job demands are high. Frederickson (2003) as cited by Sweetman and Luthans (2010:62) found that not only does resilience act as a buffer against job demands; the presence of resilience can also undo the negative impact of stress of past adversity. This is done by broadening one’s cognitive strategies and by understanding and interpreting the current environment, which in turn leads to building endurance and perseverance.

Over and above these findings, Dawkins, Martin, Scott and Sanderson (2013:350) have concurred that positive relationships have been demonstrated between efficacy, work performance and work engagement as well as between optimism and job performance. Their research also found that the levels of hope and resilience in employees directly impact on their work performance – in fact, the levels of work performance increased as these individuals faced their challenges with ingenuity and vigour.

2.6. Research hypotheses

As stated in Chapter 1, the aim of this study is to investigate the relationship between PsyCap levels and work engagement. Research has indicated that developing the PsyCap of employees (consisting of hope, efficacy, resilience and optimism) increases psychological resources that will lead to greater work engagement (Sweetman & Luthans,

2010:65). Luthans *et al.* (2007:550) posit that when the four constructs of PsyCap are combined into a core construct, PsyCap may be a stronger predictor than any of the four constructs individually. Dawkins *et al.* (2013:350) concur by stating that PsyCap creates a synergy between these four constructs whereby the whole may be greater than the sum of its parts.

The research hypotheses therefore are as follow:

Hypothesis 1: There is a positive relationship between PsyCap and work engagement.

Hypothesis 1A: Overall PsyCap will have a stronger relationship with work engagement than hope.

Hypothesis 1B: Overall PsyCap will have a stronger relationship with work engagement than efficacy.

Hypothesis 1C: Overall PsyCap will have a stronger relationship with work engagement than resilience.

Hypothesis 1D: Overall PsyCap will have a stronger relationship with work engagement than optimism.

Hypothesis 2: Work engagement can be predicted by means of PsyCap.

2.7. Conclusion

This chapter provided an overview of the main constructs in this study, namely PsyCap and work engagement and the relationship between the variables.

To understand these constructs in context, a brief discussion was given on the concepts of positive psychology and organisational behaviour and the development of PsyCap.

Furthermore, focus was placed on the four constructs of PsyCap, namely hope, efficacy, resilience and optimism. The concept of work engagement was discussed and the relationship between PsyCap and work engagement explained.

From the different aspects which were highlighted in this chapter regarding the abovementioned variables, it can be deduced that:

- there is considerable value in a positive approach in the workplace and therefore in positive organisational behaviour;
- PsyCap, which comprises hope, efficacy, resilience and optimism, can be developed and enhanced and relates to the levels of organisational outcomes; and
- employees who are engaged, *vis-à-vis* energetic, dedicated and absorbed in their work, are of critical importance for an organisation to thrive in turbulent circumstances.

Chapter 3 will focus on the research methodology that was used to conduct the study.

3 Chapter 3: Research methodology

3.1. Introduction

The aim of this study, as set out in Chapter 1, is to investigate the relationship between PsyCap levels and work engagement. By understanding this relationship it can be implied that measuring high PsyCap levels in participants may indicate high levels of work engagement that leads to increased efforts and performance in the workplace. Chapter 2 discussed the theory that underpins this study and the purpose of Chapter 3 is to focus on the research methodology that was used to conduct the study. The research design, including the sampling method, measurement instruments and procedure followed to address the research objectives will be discussed in this chapter.

3.2. Empirical investigation

According to Babbie (2010:20), there are four broad dialectics of social research, namely the type of explanation: idiographic or nomothetic; inductive or deductive theory; qualitative or quantitative data; and whether the research is done solely to gain knowledge or to further apply that which is known. In this research, a nomothetic approach of explanation was followed, since it sought to identify a number of factors that make a general impact; the theory was inductive, as general principles were developed from specific data; the data collected was quantitative in nature, as structured questionnaires were used. The aim of this research was to gain knowledge and to understand how the levels of PsyCap correlate with the level of work engagement.

3.3. The research approach

According to Babbie (2010:92), the main purposes of social research are one, or a combination of the following:

- exploration – to develop an understanding of some phenomenon;
- description – to define an exact account of a phenomenon; and
- explanation – the account of the relationship among different elements of the studied phenomenon.

The nature of this research is descriptive, exploratory and explanatory, as it *describes* that which is known from the questionnaires regarding the levels of PsyCap of the participants and their degree of work engagement (WE); it *explores* the relationship between the PsyCap dimensions and WE and furthermore *explains* the extent to which WE can be predicted by the PsyCap construct.

3.4. The research design

Babbie (2010:114) states that a research design consists of the research problem, the choice of methods to be used to collect data, the processing of information and the interpretations of the observations/findings. A non-experimental research design – where the researcher does not have direct control over the variables – was used to explore the relationship between the four PsyCap constructs (hope, efficacy, resilience and optimism) and work engagement.

3.5. Population and sampling

A research problem concerns a specific population which consists of units of analysis to which the study relates (Welman *et al.*, 2009:52). According to Babbie (2010:199) a study population is an aggregation of the study elements from which the sample will be taken. The population for this study consisted of employees in the poultry hatchery industry from where the study was conducted. The type of sampling used in this study is non-probability sampling. Babbie (2010:192) defines this as “any technique in which samples are selected in some way not suggested by the probability theory”.

There are four types of non-probability sampling, namely: reliance on available/convenient subjects, purposive or judgmental sampling, snowball sampling and quota sampling (Babbie, 2010:193). The type of non-probability sampling utilised in this study was convenient sampling, as information was collected from participants of the population who were available to offer it.

3.6. Data collection procedure

A total of 200 questionnaires were handed to the Human Resource Manager at the company where the research was conducted. The Training Manager was briefed on the aim of the study and the content of the questionnaires. The questionnaires were

distributed among employees to complete on their own. A number of 183 participants completed the questionnaires, which were collected after a period of three weeks.

3.7. Measuring instruments

A composite questionnaire, which consisted of two measuring instruments, was used to gather information for this study. The questionnaires were self-administered and respondents were requested to complete the questionnaire themselves. The two instruments utilised were the PsyCap Questionnaire (PCQ) and the Utrecht Work Engagement Survey (UWES). The questionnaire furthermore contained a demographic section that collected information pertaining to *inter alia* gender, race, age and tenure that provided a clear understanding of the sample in order to contextualise the findings of this study. The two measurement instruments will be outlined below.

3.7.1. PsyCap Questionnaire

PsyCap was measured with the PsyCap Questionnaire (PCQ) developed by Luthans, Youssef and Avolio (2007:237) and comprises 24 items which make use of the Likert response scale, ranging from “1” (strongly disagree) to “6” (strongly agree). Babbie (2010:179) state that the value of a Likert scale lies in the “unambiguous ordinality of response categories”.

The questionnaire comprises four subscales with equal weight: hope, efficacy, resilience and optimism. Each of these subscales consists of six items. Examples of statements pertaining to hope are “there are lots of ways around any problem” and “at this time, I am meeting the work goals that I have set for myself”. Items pertaining to efficacy are *inter alia* “I feel confident analysing a long-term problem to find a solution” and “I feel confident helping to set targets/goals in my work area”. The resilience sub-scale is characterised by items such as “I usually manage difficulties one way or another at work” and “I usually take stressful things at work in my stride”. Examples of statements measuring levels of optimism are “I am optimistic about what will happen to me in the future as it pertains to work” and “I approach this job as if ‘every cloud has a silver lining’”. Three of the questions from the entire questionnaire are reversed scored which would prevent participants to fall into a pattern and to encourage critical thinking.

PsyCap subscales were calculated by adding the scores of a specific subscale and dividing the total by the number of items of that subscale. To determine the total score for PsyCap, the same procedure was followed. The PCQ thus produces four subscale scores and a total score which ranges from 1-6, which indicates the levels of PsyCap. A high score represents high levels of PsyCap whereas a low score represents low levels of PsyCap.

Luthans *et al.* (2007:555) conducted two studies to determine the psychometric properties of the PsyCap questionnaire. The Cronbach Alpha for the overall PsyCap measure for the four samples indicated reliability consistently above accepted standards, i.e. 0.88 and above. The Cronbach Alpha for each of the four subscales was also found to be adequately reliable, with the exception of the optimism scale in the second sample (0.69) and the resilience scale in the third sample (0.66). The findings are summarised in Table 3.1.

Table 3.1: Cronbach Alpha for four subscales of PsyCap as well as overall PsyCap

Dimension	Sample 1	Sample 2	Sample 3	Sample 4
Hope	0.72	0.75	0.80	0.76
Efficacy	0.75	0.84	0.85	0.75
Resilience	0.71	0.71	0.66	0.72
Optimism	0.74	0.69	0.76	0.79
Overall PsyCap	0.88	0.89	0.89	0.89

Source: Luthans, Avolio, Avey and Norman (2007)

In South Africa, research by Simons and Buitendach (2013:8) as well as De Waal and Pienaar (2013:6) confirm that their studies found high levels of internal consistency reliabilities. Simons and Buitendach (2013:9) furthermore established that this particular measure was valid as it appeared to have measured what it intended to measure.

3.7.2. Utrecht Work Engagement Survey

Schaufeli and Bakker (2002:5) developed a measure for engagement namely the Utrecht Work Engagement Scale (UWES) which is widely used in measuring engagement. The

UWES is a self-report questionnaire that includes the three aspects of work engagement: vigour, dedication and absorption. Vigour is assessed by six items which refer to high levels of energy and resilience, the willingness to put in effort, not becoming tired easily and persistence in adverse circumstances, e.g. “at my work I feel bursting with energy”, “when I get up in the morning, I feel like going to work”.

Dedication is assessed by five items which refer to feeling inspired and challenged by one’s job as well as feeling enthusiastic and proud, and furthermore deriving a sense of significance of one’s work. Typical statements *inter alia* are “I find the work that I do full of meaning and purpose” and “my job inspires me”.

Absorption is measured by six items referring to being happy and so immersed in one’s work to such an extent that it is difficult to detach one’s self, e.g. “when I am working, I forget everything else around me” and “I get carried away when I am working”.

Schaufeli and Bakker (2002:14) established a Cronbach Alpha of 0.86 indicated reliability consistently above accepted standards. The results from psychometric analysis of the UWES indicate the following:

- Factoral validity: the three-factor structure of the UWES is superior to the one-factor model;
- Inter-correlations: correlations between the three scales exceed 0.65 and correlations between the latent variables range from 0.80 – 0.90;
- Internal consistency: values of Cronbach Alpha are equal or exceed the value of 0.70;
- Stability: scores have been stable over time.

Bakker and Demerouti (2008:210) as well as Rothman and Rothman (2010:5) confirm that the UWES has been validated in several countries, including South Africa. As with the PsyCap Questionnaire, the scores of the three subscales were respectively calculated by adding the scores of a particular subscale and dividing it by the number of items of that specific subscale. To determine the total score of work engagement, a similar process was followed. This specific measurement thus generates scores for the three

subscales as well as an overall score that indicate levels of work engagement. The higher the score, the more engaged the participant.

3.8. Data analysis

The data in this study was analysed by utilising quantitative techniques. The Statistical Package for the Social Science program (version 2.23) was used. Descriptive statistics (means, medians, standard deviations, skewness and kurtosis) were used to describe the data.

In order to determine the factor structure of the PsyCap Questionnaire and UWES, a confirmatory factor analysis was conducted. Spearman's correlation coefficients were used to determine the relationship between PsyCap and work engagement, as well as to specify the relationships between the variables of PsyCap and work engagement. Regression analysis was conducted in order to determine whether PsyCap could predict work engagement.

3.9. Ethical considerations

Babbie (2010:64) states that ethics is typically associated with morality, and both words – ethics and morality – are concerned with what is right and what is wrong. As people interpret this issue differently, it is very important that social researchers should be sensitive to what is regarded as right or wrong. Babbie (2010:65) posit certain important ethical agreements that should be taken into account when conducting social research:

- participation should be voluntary and not compulsory;
- the research should not injure or harm any of the participants – whether physically or emotionally;
- the protecting of participants' identity, i.e. anonymity and confidentiality;
- there must be no deception by the researcher during the research process. If so, proper debriefing must be executed; and
- research should be analysed and reported – even the shortcomings and mistakes.

To adhere to the above, participants were informed of their voluntary participation and they were provided with clarity on the research. Anonymity and confidentiality throughout

the process were guaranteed and maintained. None of the research methods placed any of the participants at risk to harmful situations. The questionnaire handed to the participants included an introductory letter confirming anonymity and confidentiality of results as well as contact details of the researcher, should participants have any queries.

Ethical clearance was given by the Ethics Committee of the NWU Potchefstroom Campus for this study (clearance number EMSPBS16/02/16-01/02) in March 2016.

3.10. Conclusion

Chapter 3 aimed to summarise the research methodology to be utilised in this study and confirmed the reliability and validity of the measurement instruments used. The measurement instruments were investigated and the results of the data analysis will be posited in Chapter 4.

4 Chapter 4: Results

4.1. Introduction

As posited in Chapter 1, the main aim of this study is to examine the relationship between PsyCap and work engagement. The previous chapter explained the research methodology, the design of the study as well as the measurement instruments utilised. This chapter will present the results of the study and investigate whether the results support the research hypotheses as presented in Chapter 1.

Supported by the literature review in Chapter 2, it was hypothesised that there is a direct correlation between the levels of PsyCap and work engagement and that work engagement can be predicted by means of PsyCap.

A variety of statistical techniques were utilised to determine what the relationship between the variables entail. Descriptive as well as inferential statistics were utilised and the results are presented in this chapter.

4.2. Sample

This section presents the descriptive statistics derived from the variables included in the biographical questionnaire. These variables are: age, gender, educational qualification, race, language, tenure, job classification, employment status and marital status. A total sample of 183 workers from a poultry hatchery in Potchefstroom participated in this study, resulting in a return of 91.5% of questionnaires. The results of the analysis of the biographical data are presented in graphical format, with a brief description of the respondents with regards to the particular data.

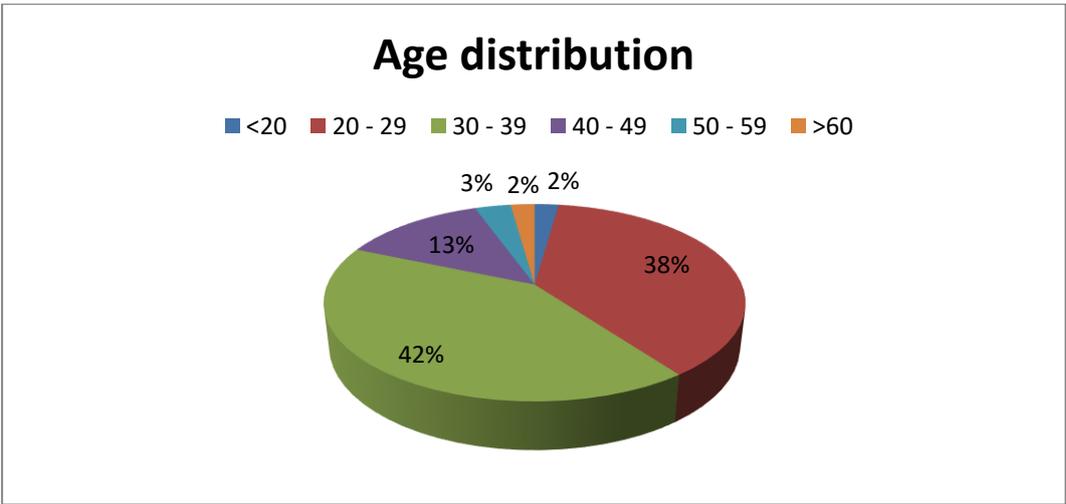


Figure 4.1: Age distribution

From Figure 4.1 it is clear that the majority of respondents is in the age category of 30 – 39 years (42%) while 38% of respondents fall in the 20 – 29 age category. 13% of respondents are between the ages of 40 – 49. The least number of respondents are younger than 20 years (2%) and older than 60 (2%). The remaining 3% falls in the age category of 50 – 59 years.

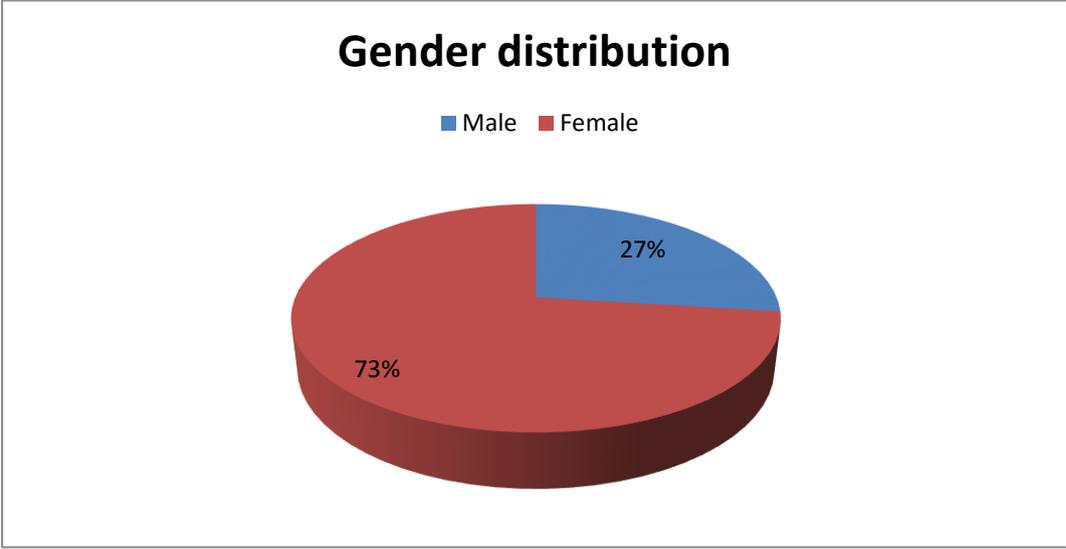


Figure 4.2: Gender distribution

The above figure indicates that the majority of respondents were female (73%).

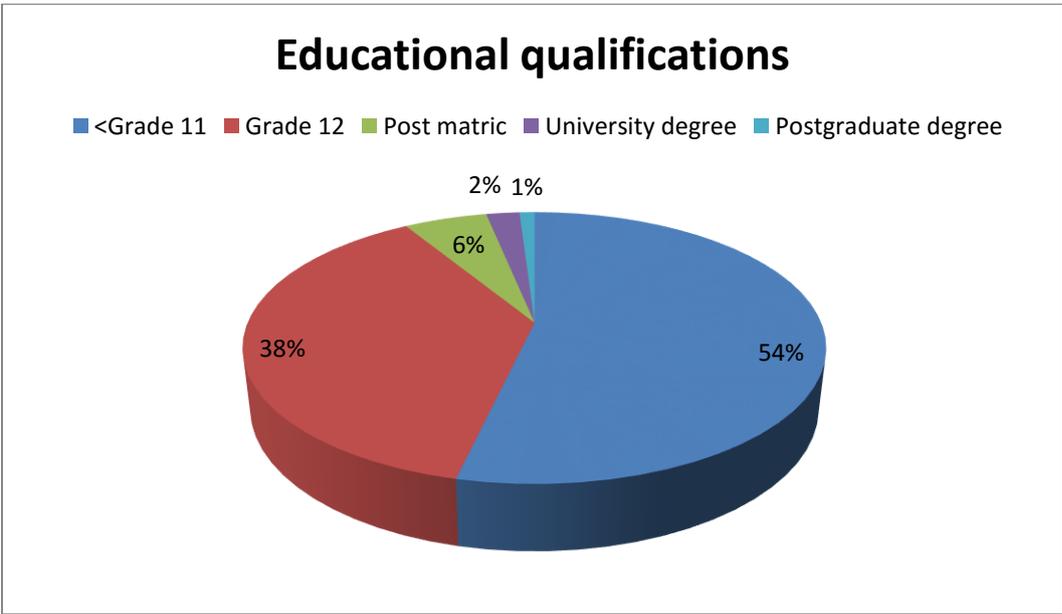


Figure 4.3: Educational qualifications

Figure 4.3 indicates that the highest qualification of the majority of respondents (54%) is Grade 11 or less. Those with a Grade 12 National Certificate constitute 38%, whilst the remaining 9% of respondents have a post matric qualification.

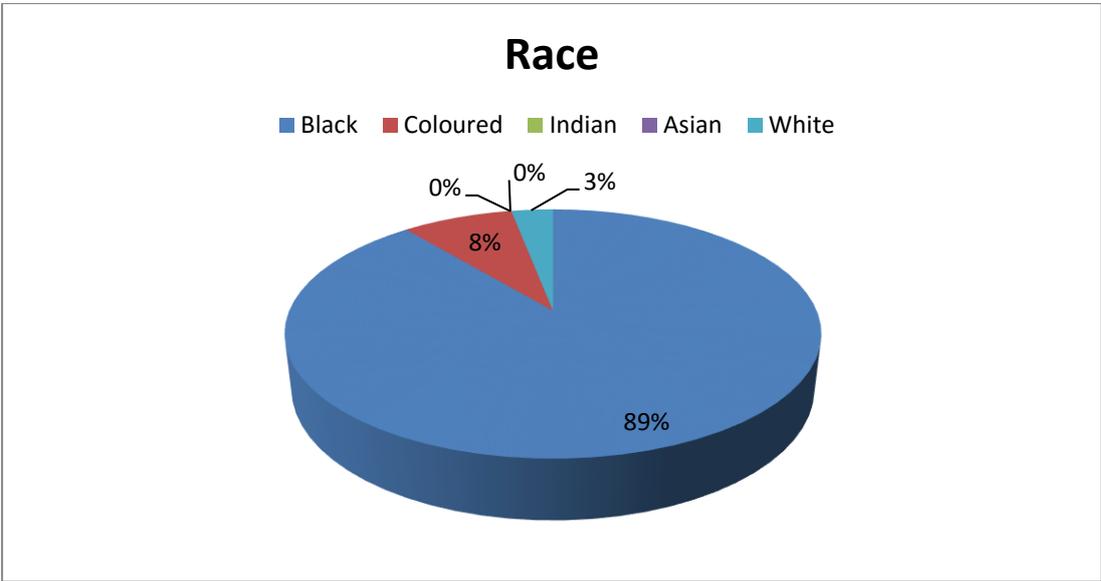


Figure 4.4: Race distribution

Figure 4.4 indicates that the largest portion of the sample (n = 183) is Black (89%). The remaining respondents consisted of Coloured (8%) and White (3%).

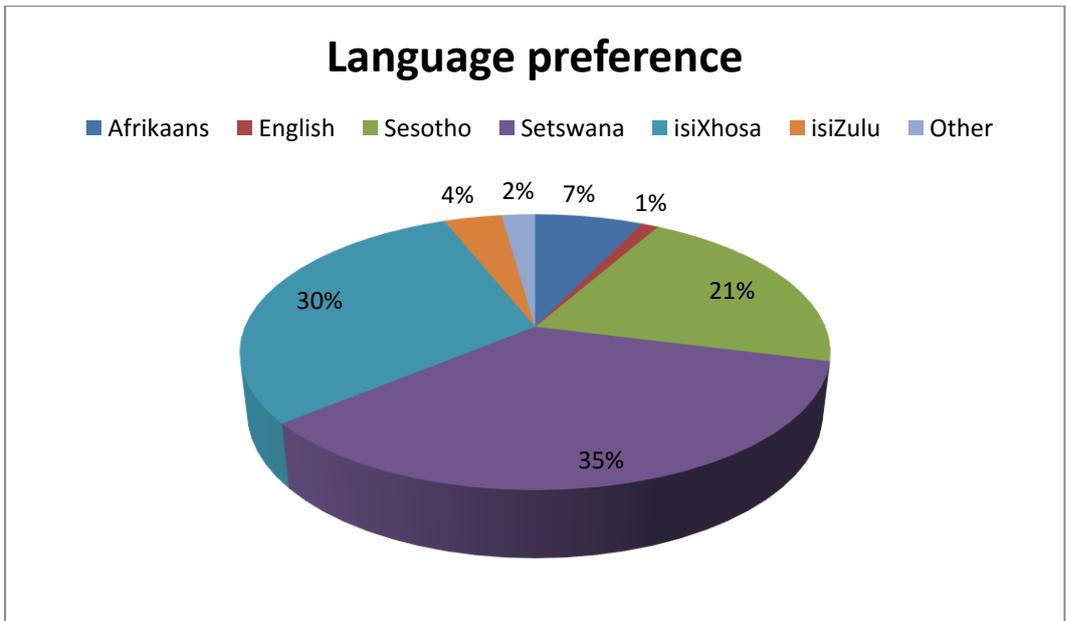


Figure 4.5: Language preference

Figure 4.5 indicates that the majority of respondents is Setswana speaking (35%); isiXhosa speaking respondents constitute 30% and Sesotho participants 21%. This correlates with the distribution of ethnicity which indicates that 89% of respondents were Black. A total of 7% of respondents were Afrikaans speaking, 4% isiZulu speaking, 2% indicated that they prefer isiTsonga and 1% indicated that English is their language of choice.

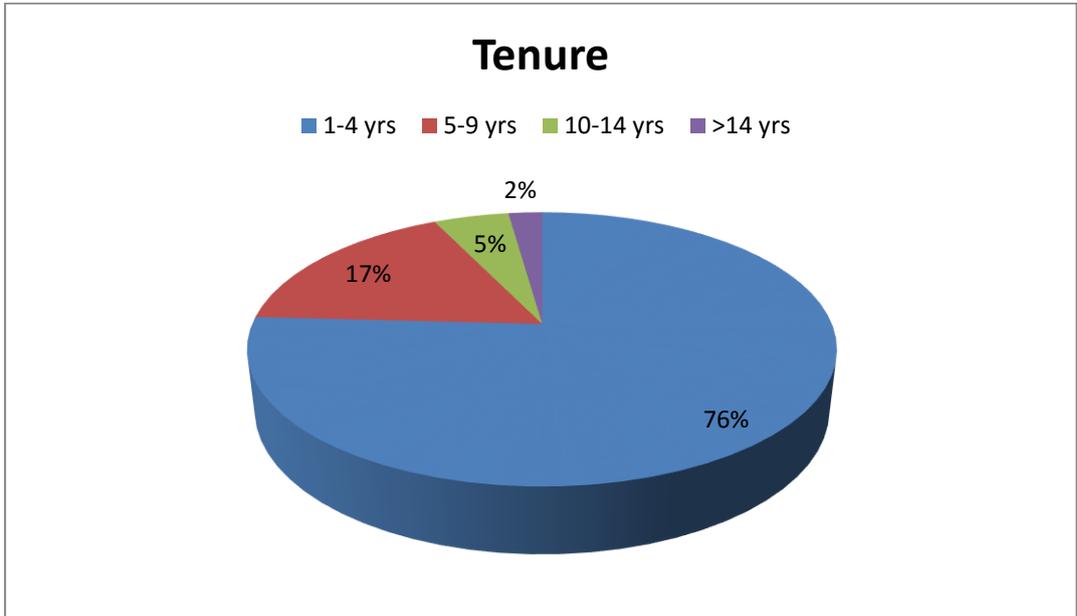


Figure 4.6: Tenure

From Figure 4.6 it is known that the majority of respondents (76%) were employed in the organisation between 1 – 4 years, while those employed for 5 – 9 years represented 17% of respondents. Of this sample, 5% has been with the organisation for a period of 10 – 14 years, whilst those who have been employed for longer than 14 years constitute 2% of the sample.

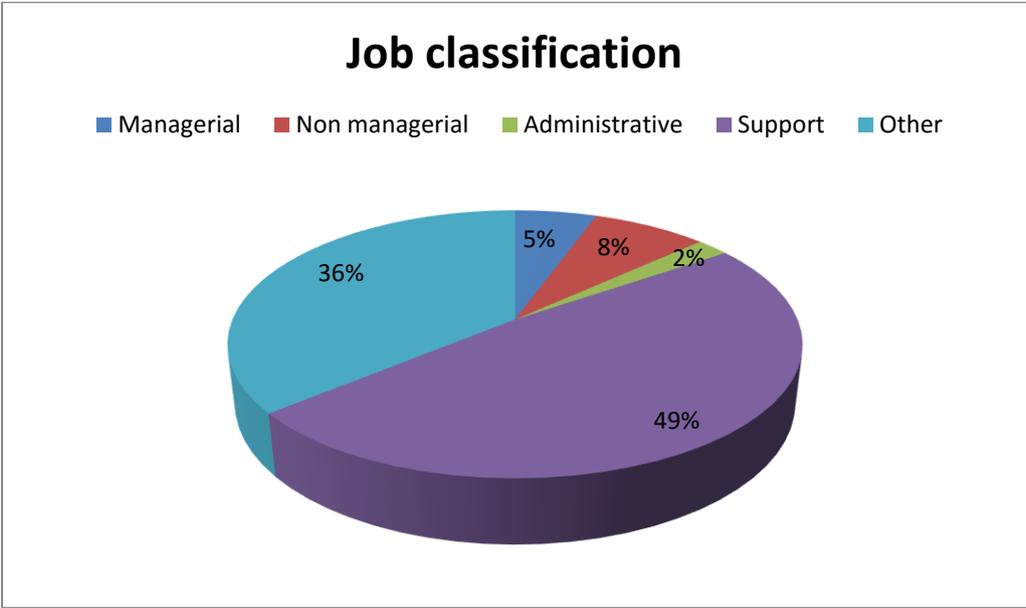


Figure 4.7: Job classification

Figure 4.7 indicates that the majority of respondents, 49%, are support staff whilst 36% of respondents indicated that they do general work. Managerial, non-managerial and administrative staff constitutes the remaining 15% of respondents.

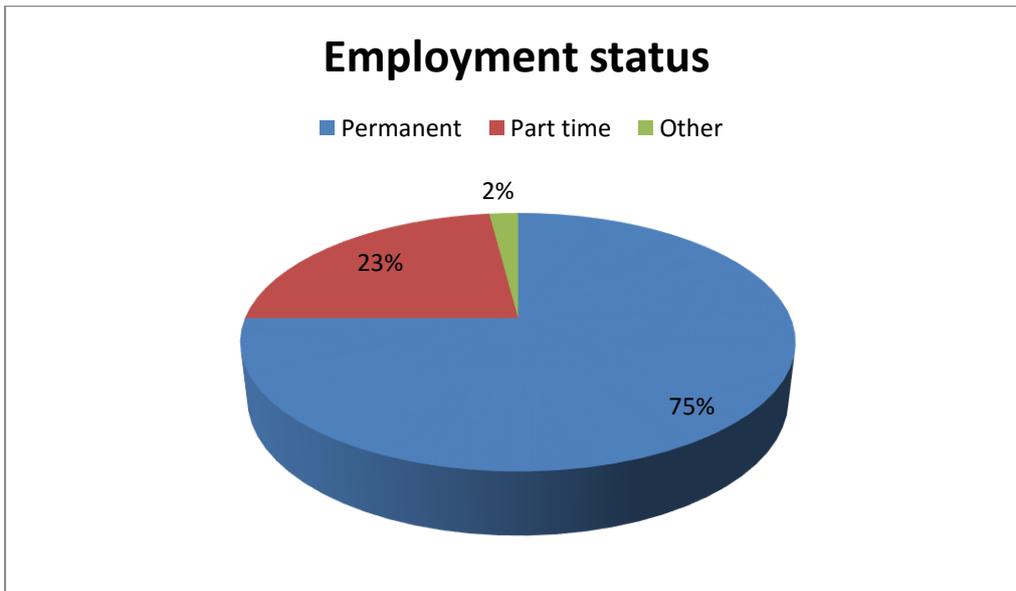


Figure 4.8: Employment status

Figure 4.8 indicates that 75% of the respondents are permanent employees, 23% are employed on a part time basis and 2% of respondents indicated that they are casual workers.

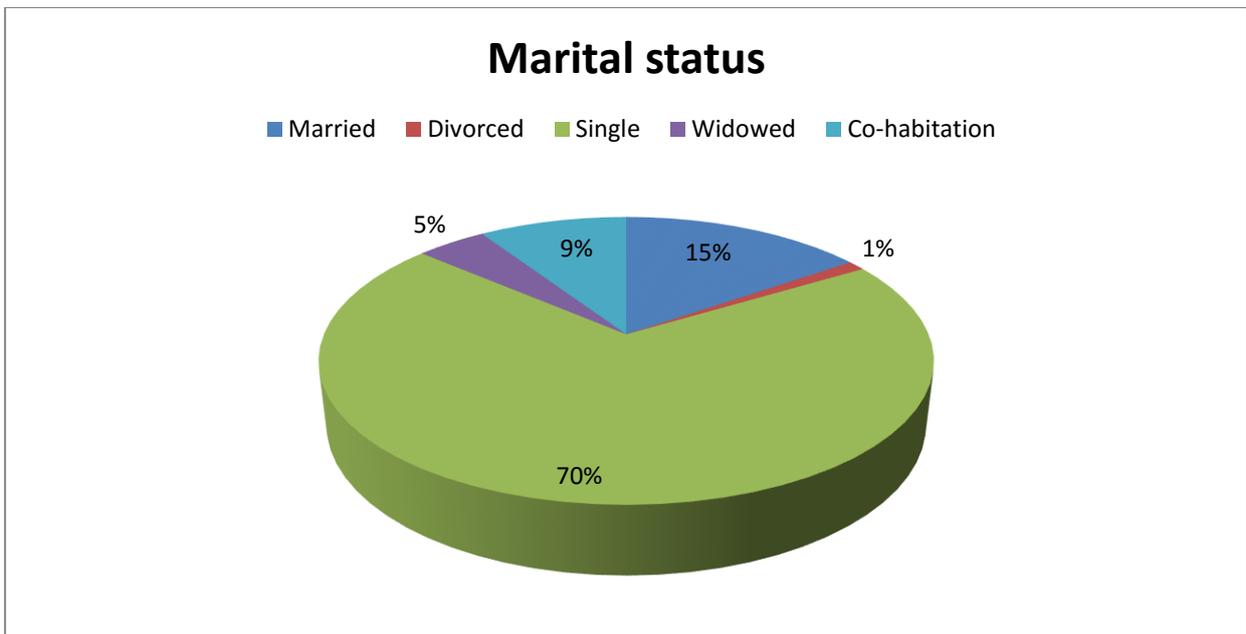


Figure 4.9: Marital status

This figure indicates that the majority of respondents, 70%, are single. Married participants comprised 15% of the sample and 9% of the respondents were in a co-habitation relationship. The remaining 6% constitute 5% of widowed and 1% divorced employees respectively.

As can be seen from the above charts, the sample (n = 183) consisted predominantly of female respondents (73%) with the largest portion between the age of 30 – 39 years. The largest portion of the sample was Black (89%) and unmarried (70%) with an education level of mostly Grade 11 or less (54%). The poultry hatchery where this study was conducted mainly employ females, given the nature of the specific work done at this particular hatchery and the demographics are therefore a relative reliable reflection of the specific population.

The biographical data has provided an overview of the sample of this study. The following section will deal with the results from the two questionnaires utilised to gather information regarding the levels of PsyCap and work engagement of respondents.

4.3. Results

4.3.1. Central tendency and dispersion

The following section will depict the descriptive statistics which were calculated on the basis of the variables as they appeared in the questionnaires.

Table 4.1: Reliability of the subscales of PCQ, PCQ, subscales of UWES and UWES

Dimension	Number of items	n	Cronbach Alpha
Hope	(Questions 7-12) 6	183	.67
Efficacy	(Questions 1-6) 6	183	.60
Resilience	(Questions 13-18) 6	183	.57 **
Optimism	(Questions 19-24) 6	183	.62 **
PsyCap	24	183	.77
Vigour	6	183	.70
Dedication	5	183	.67
Absorption	6	183	.67
UWES	17	183	.84

** excluding reversed score questions

In order to ensure that the results produced would be consistent, the reliability of the measuring instruments was determined. Cronbach Alpha coefficients as well as item-total correlations were used to determine the reliability of the instruments as well as their subscales, which were used in this study. The data analysis took reversed phrased questions into account by reversing the scores. Malhotra (2010:319) are of the opinion that a Cronbach Alpha of more than .6 is an acceptable indicator of reliability. User-defined missing values were treated as missing. Pallant (2010:97) states that “Cronbach Alpha values are, however, quite sensitive to the number of items in the scale. With short scales (e.g. scales with fewer than ten items), it is common to find quite low Cronbach Alpha values (e.g. 5)”.

In order to ensure comprehensiveness, each item was analysed for its item-total correlation, which measures the correlation of each individual item to the total score of all the other items. According to Field (2009:678), item-total correlations should preferably be above 0.3. Generally speaking, a low item-total correlation indicates that a specific item does not fit well with the tendency of the total group of items. These items may have been poorly formulated and thus misunderstood, or that they simply do not measure the same construct as the rest of the items.

The data analysis in this study indicated that there were a few items which showed item-total correlations below 0.3 (see Annexure C). However, there were no significant change when the variable was deleted, except for the reversed score questions as seen in the column named *Cronbach Alpha if item deleted*. Therefore, all data was thus used in determining the Cronbach Alpha coefficients. As indicated in Table 4.1, the PsyCap constructs of resilience (question 13) and optimism (questions 20 and 23) contained reversed scored items. It is noted that these subscales had a lower coefficient when these questions were included in the data analysis. Once the reversed score questions were excluded, the coefficients of these subscales increased to an acceptable score of .57 and .62 respectively. Annexure C contains the correlation coefficients of these two constructs with and without the reversed scored questions.

Reliability refers to the stability and consistency of the measurement instruments. According to Simons and Buitendach (2013:5), the Cronbach Alpha reported in a study conducted by Avey, Luthans and Youssef (2010) were as follows: hope .87; efficacy .87, resilience .72 and optimism .78. Furthermore, acceptable reliability coefficients have been

reported in studies conducted in South Africa for the four subscales of PsyCap, ranging from .67 to .83. The UWES has been found to have acceptable reliability coefficients as reported in South Africa and internationally and reliability for the three constructs ranged between .78 and .89 in a South African study (Simons & Buitendach, 2013:5).

Table 4.1 indicates that both PsyCap and UWES obtained a high Cronbach Alpha coefficient, namely .77 and .84 respectively and is indicative of a high level of reliability and internal consistency.

Furthermore, three of the four subscales of PsyCap met the minimum acceptable alpha coefficient of .60. The reliability coefficient of the constructs: hope, efficacy, resilience and optimism were .67, .60, .57 and .62 respectively. The score of .57 is acceptable as it is difficult to obtain high Cronbach Alpha when dealing with items on small scales (Pallant, 2010:97). All three constructs of work engagement were above the minimum accepted Cronbach Alpha – vigour, dedication and absorption scored internal reliabilities of .70, .67 and .67 respectively. From this it is deduced that the reported data is suitable for analysis.

The descriptive statistics calculated on the basis of the variables included in the questionnaires are portrayed in Table 4.2.

Table 4.2: Descriptive statistics for the PsyCap Questionnaire

	n	Minimum	Maximum	Mean	Standard deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std Error	Statistic	Std Error
Hope	183	2.33	6.00	4.62	.76	-.83	.18	.43	.35
Efficacy	183	2.17	6.00	4.44	.78	-.41	.18	.04	.35
Resilience	183	1.20	6.00	4.17	.90	-.57	.18	.21	.35
Optimism	183	1.25	6.00	4.40	.92	-.94	.18	.76	.35
PsyCap	183	2.83	5.71	4.28	.55	-.30	.18	.07	.35
Valid n	183								

The results in Table 4.2 indicate that the majority of participants scored high average levels of PsyCap (scored on a Likert scale ranging from 1-6; $M = 4.28$ and $SD = .55$). The deduction is therefore made that the participants perceive their levels of PsyCap to be above average. When examining the four constructs separately, it is deduced that participants agree that they have the necessary confidence (efficacy) to take on challenging tasks ($M = 4.44$ and $SD = .78$); participants are inclined to persevere in order to reach their goals and are willing to seek different paths in order to succeed, thus hopeful ($M = 4.62$ and $SD = .76$). When participants are faced with challenging situations, they are inclined to bounce back and persevere to reach their goals (resilience) ($M = 4.17$ and $SD = .90$). Participants indicate above average levels of optimism indicating their willingness to make a positive contribution to their work environment ($M = 4.40$ and $SD = .92$).

The distribution of the data was also explored with statistics relating to skewness and kurtosis, as most statistical analysis assumes that the data is normally distributed. To test this assumption, it is necessary to conduct a test for normality. Regarding skewness, the four constructs of PsyCap as well as PsyCap ranges between $-.30$ and $-.94$, all being negative values. This indicates that there is a tendency of skewness to the left/negative skewness, indicating that most of the values occurred on the right end/high end of the scale (1-6). In a normal distribution, the values of skewness or kurtosis are 0. This data thus indicates a deviation from a normal distribution. With regards to kurtosis, the data indicates that there is a degree of peaked distribution based on the data. The constructs with peak distributions were hope and optimism, with scores of $.43$ and $.76$.

The following results were found when testing for normality:

Table 4.3: Test of normality

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
PsyCap	,081	181	,005	,984	181	,042
Self_Efficacy	,118	181	,000	,969	181	,000
Hope	,181	181	,000	,929	181	,000
Resilience	,133	181	,000	,963	181	,000
Optimism	,186	181	,000	,914	181	,000
Vigour	,072	181	,023	,956	181	,000
Dedication	,127	181	,000	,916	181	,000
Absorption	,074	181	,018	,958	181	,000
UWES	,074	181	,016	,958	181	,000

a. Lilliefors Significance Correction

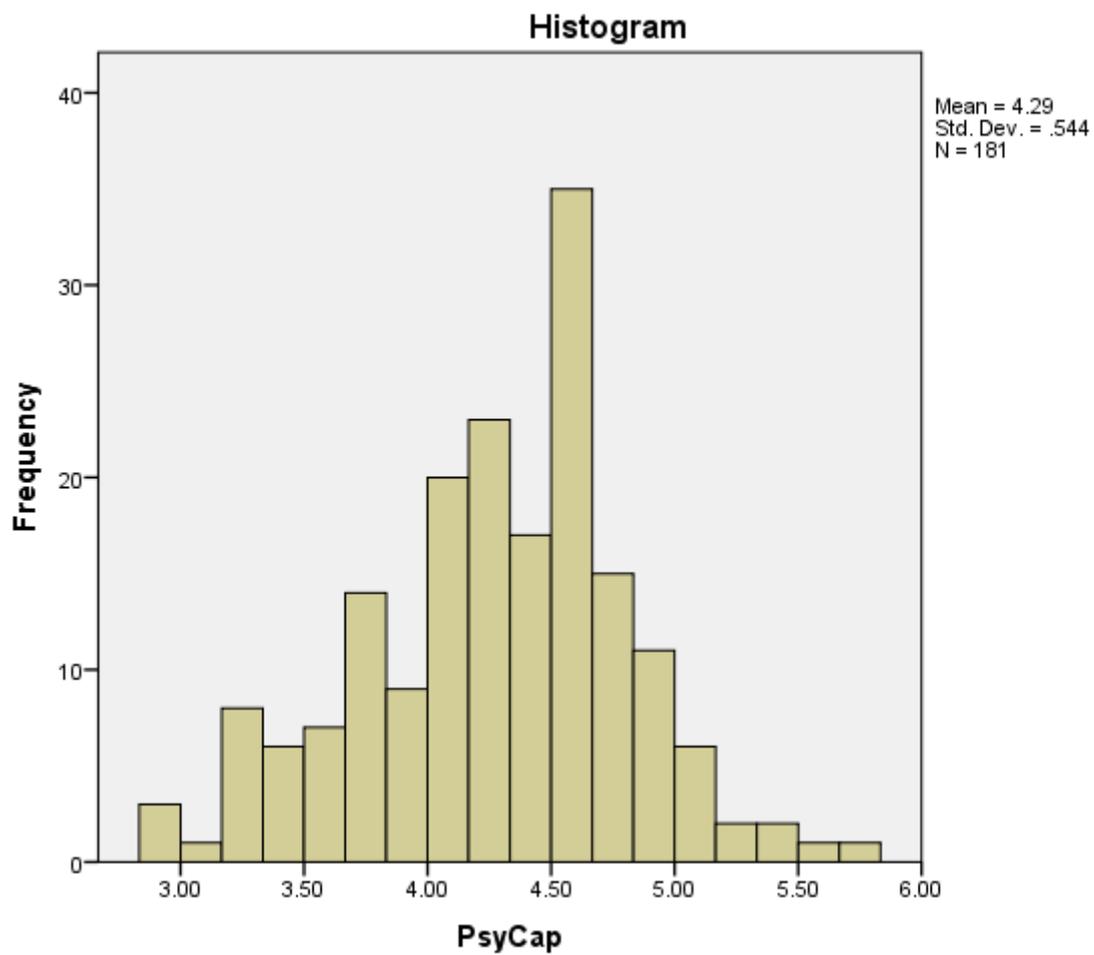
This table indicates that there is a slight deviation from a normal distribution as the sig value is .042 (sig value >0.05 indicates a normal distribution).

Table 4.4: Extreme values

Extreme values			Case number	Value
PsyCap	Highest	1	144	5,71
		2	118	5,58
		3	162	5,38
		4	166	5,38
		5	120	5,29
	Lowest	1	1	2,83
		2	174	2,88
		3	178	2,96
		4	133	3,00
		5	54	3.25 ^a

Table 4.4 confirms that the data deviates slightly from a normal distribution as indicated by the extreme values ranging from 5.71 as highest value and 2.96 as lowest value.

Table 4.5: Histogram



The histogram indicates a tendency of skewness to the left, which furthermore is indicative of a deviation from a normal distribution.

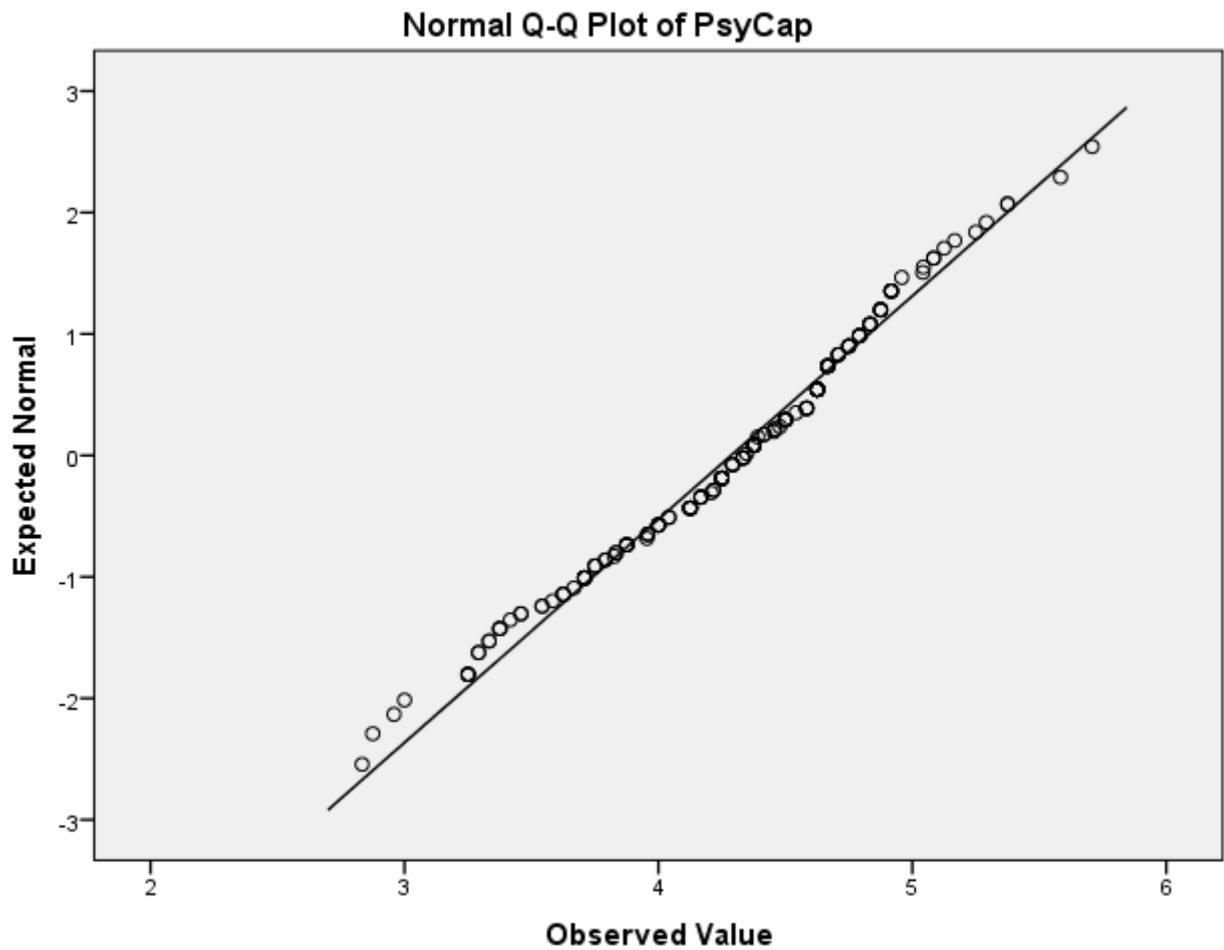


Figure 4.10: Normal Q-Q plot of PsyCap

As the values should be plotted on the straight line, the Q-Q plot substantiates previous analysis of data not normally distributed.

From the above data analysis it is clear that the data deviates slightly from a normal distribution and therefore this study made use of Spearman's ranking correlation as this correlation does not require data to be normally distributed.

Table 4.6: Descriptive statistics for the UWES

	n	Minimum	Maximum	Mean	Standard deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std Error	Statistic	Std Error
Vigour	183	1.00	6.00	4.45	1.08	-.64	.180	.46	.35
Dedication	182	1.00	6.00	4.74	1.11	-.83	.180	.31	.35
Absorption	181	1.00	6.00	4.36	1.10	-.21	.180	-.43	.35
Work engagement	183	1.00	6.00	4.49	.97	-.55	.180	.81	.35
Valid n	181								

Table 4.6 indicates that the majority of participants scored high average levels of work engagement, which was scored on a Likert scale ranging from 1-6. The mean for work engagement was 4.49 with a standard deviation of .97. It is therefore deduced that participants perceive their levels of work engagement to be above average. From the data relating to the three elements of work engagement it is deduced that participants have higher than average energy levels and enthusiasm to fulfil their tasks (vigour: $M = 4.45$ and $SD = 1.08$). Participants are loyal and dedicated towards their work environment and tasks ($M = 4.74$ and $SD = 1.11$) and agree that they are focused on their goals and work at hand ($M = 4.36$ and $SD = 1.10$).

As seen in Annexure C, the reliability of resilience is lower than the rest of the PsyCap dimensions, which is also evident in the research conducted by Amunkete (2015:43) in Namibia. What is interesting about the research is that the reliabilities of scales were computed by using a formula based on the sum of squares of standardised loadings and the sum of standardised variance of error terms. According to Amunkete (2015:43), Cronbach Alpha does not provide a dependable estimate of scale reliability when latent variable modelling is used and therefore this method was used as an alternative. The research done in this study as well as the research done by Amunkete – both in a Southern African context and therefore more applicable – indicates a low reliability score for resilience and invites further research to be done on this particular dimension of PsyCap.

4.3.2. Inferential statistics

This section reports the results obtained for the inferential statistics to determine the relationship between PsyCap and work engagement in this study.

Table 4.7: Spearman's correlation between PsyCap dimensions and work engagement

	Spearman's correlation	Sig (2-tailed)	n
Hope	.23	.001	183
Efficacy	.23	.001	183
Resilience	.03	.60	183
Optimism	.23	.001	183
PsyCap	.25	.001	183

Values of ± 0.1 indicate a small effect, ± 0.3 indicate a medium effect and ± 0.5 indicate a large effect (Field, 2009:170).

Spearman's correlations were used to determine the nature and strength of the correlations between item responses. From the findings, it is deduced that with the exception of resilience, the four PsyCap constructs individually as well as total PsyCap, have a positive correlation with work engagement. Total PsyCap has the highest correlation with work engagement ($r = .25$, $p < 0.01$), whereas hope and optimism both have a correlation coefficient of $.23$ ($p < 0.01$). Efficacy has a correlation coefficient of $.23$ ($p < 0.01$). With a p-value of $.60$ and correlation coefficient of $.03$, resilience is the construct with the least correlation with work engagement.

From section 4.3.1 and the abovementioned paragraph, it is clear that resilience as one of the PsyCap constructs, has the lowest reliability score and has the least correlation with work engagement. From the above it is clear that this study found a positive relationship between PsyCap and WE. This confirms the research done by *inter alia* Xanthapoulou, Bakker, Demerouti and Schaufeli (2007:137) as well as follow up research done by Xanthapoulou, Bakker, Demerouti and Schaufeli (2009:196). Their findings indicated that employees who are engaged in their work have high levels of efficacy and optimism. From these findings it is posited that engaged employees display PsyCap,

which assist them to have a positive impact in their work environment. The findings were also confirmed in research conducted by Hodges (2010:63) and Simons and Buitendach (2013:8), who found that there is a positive relationship between PsyCap sub dimensions and WE sub dimensions.

In order to establish whether work engagement can be predicted by means of PsyCap, standard multiple regression was utilised. The results of the multiple regression with work engagement as the dependent variable are portrayed in Table 4.8.

Table 4.8: Beta coefficient for the sample (with WE as dependent variable)

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	99.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	2,346	,549		4,277	,000	,918	3,774
	PsyCap	,502	,127	,282	3,948	,000	,171	,833

a. Dependent Variable: UWES

From Table 4.8 it is clear that there is a 99% certainty that the values are between .171 and .833 and it is furthermore deduced that PsyCap can definitely predict work engagement as the sig-value of 0.000 is smaller than 0.01, i.e. 99% level. This finding is consistent with the results of previous studies that investigated the predictive nature of PsyCap on WE *inter alia* Bakker and Demerouti (2008:214), Herbert (2011:159) and Simons and Buitendach (2013:9). The unstandardised beta coefficient is positive, which furthermore indicates that there is a positive correlation between PsyCap and work engagement. The correlation between the two variables is .282, which leads to a medium effect on the strength of the correlation (a value of ± 0.3 indicates a medium effect).

From the above table it is therefore deduced that one unit increase in PsyCap equals .502 increase in work engagement.

The R-square value is low and indicates that 7.9% of the variability in work engagement can be accounted for by PsyCap (Table 4.9.). The medium correlation of .282 as indicated in Table 4.8 could be a cause of the low R-square value.

Table 4.9: Model summary

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.282 ^a	.079	.074	.93613

a. Predictors: (Constant), PsyCap
b. Dependent Variable: UWES

In conclusion, the findings of this study, which are found to be consistent with previous research findings, indicate that PsyCap plays a very important role in enhancing work engagement. The predictive nature of PsyCap on work engagement furthermore underpins the benefits which an organisation could gain when investments are made in the enhancement of the PsyCap constructs of hope, efficacy, resilience and optimism. As mentioned in Chapter 2, PsyCap is a state-like construct and can therefore be developed and enhanced through training and other interventions.

In Chapter 1, the hypotheses for this study were posited. The results of the data analysis as discussed in the previous sections will be related to the hypotheses in the following section.

4.4. Findings

Hypothesis 1: There is a positive relationship between PsyCap and work engagement.

This hypothesis is *accepted* as the data analysis has indicated that total PsyCap has a correlation with work engagement where $r = .255$ ($p < 0.01$).

Hypothesis 1A: Overall PsyCap will have a stronger relationship with work engagement than hope.

Total PsyCap has a higher correlation with work engagement ($r = .255$, $p < 0.01$), than hope with a correlation coefficient of $.236$ ($p < 0.01$). Therefore, this hypothesis is *accepted*.

Hypothesis 1B: Overall PsyCap will have a stronger relationship with work engagement than efficacy.

Total PsyCap has a correlation of .255 with work engagement ($r = .255, p < 0.01$), whereas efficacy has a correlation coefficient of .235 ($p < 0.01$). This hypothesis is thus *accepted*.

Hypothesis 1C: Overall PsyCap will have a stronger relationship with work engagement than resilience.

With a p-value of .604 and correlation coefficient of .039, resilience is the construct with the least correlation with work engagement. However, total PsyCap has a correlation coefficient of .255 and therefore this hypothesis is *accepted*.

Hypothesis 1D: Overall PsyCap will have a stronger relationship with work engagement than optimism.

Optimism has a correlation coefficient of .236 ($p < 0.01$) which is lower than the correlation coefficient of total PsyCap ($r = .255$). This hypothesis is therefore *accepted*.

Hypothesis 2: Work engagement can be predicted by means of PsyCap.

The data has indicated that PsyCap can predict work engagement as the sig-value of 0.000 is smaller than 0.05. Therefore, this hypothesis is *accepted*.

4.5. Conclusion

Chapter 4 provided an overview of the results of this research study obtained by statistical analysis of the data by means of SPSS. The said analysis included descriptive as well as inferential statistics, i.e. Spearman's correlation coefficient and regression analysis. The following chapter will suggest recommendations to be made after analysis of the data and will furthermore address the limitations of the study. Final conclusions will be drawn and the significance of the study will be posited.

5 Chapter 5: Conclusion

5.1. Introduction

In Chapter 4, the research findings of this study were presented and discussed. The hypotheses of this study were posited and the findings from the research indicated which of the hypotheses were accepted and/or rejected. Chapter 5 will present recommendations to the management of the organisation where the research was conducted, as well as recommendations for future research. This chapter will furthermore posit the limitations of the study and will conclude with the contribution of the study.

5.2. Purpose of the study

The purpose of this study was to conduct quantitative research within a South African poultry hatchery in order to investigate the relationship between PsyCap levels and work engagement, *vis-à-vis* whether high levels of PsyCap indicate high levels of work engagement in individuals. Further to this objective, the study aimed to ascertain whether PsyCap can predict WE. Positive psychology and positive organisational behaviour guided this study and the literature review which was conducted (Chapter 2) addressed PsyCap and WE as two of the well-known POB constructs. Previous empirical studies have concluded that there are a positive relationship between PsyCap and WE and that the measurement instruments were valid and reliable. This research was conducted at a poultry hatchery in the North West Province and two hypotheses were proposed (hypotheses 1 has four sub divisions which relates to whether the four individual constructs of PsyCap has a stronger relationship with WE than PsyCap as core construct).

Chapter 3 outlined the research methodology which was utilised in this study and Chapter 4 posited the results of the data analysis. The key findings from this study revealed the following:

- total PsyCap has the highest correlation with WE;
- hope, efficacy and optimism have a positive correlation with WE;
- resilience has the least correlation with WE; and
- PsyCap can predict WE.

5.3. Recommendations

Recommendations concluded from this study relates to recommendations to management as well as recommendations for further research.

Recommendations to management

As mentioned in Chapter 1, the four PsyCap constructs are state-like, which are open to development and enhancement. These constructs: hope, efficacy, resilience and optimism, can thus be developed in employees, which will lead to greater work engagement and better organisational output.

Luthans and Youssef (2004:48) propose the following approaches to enhance **efficacy**:

- mastery experiences or performance attainments;
- vicarious experiences or modelling;
- social persuasion; and
- psychological and physiological arousal.

In order to build **hope** for positive PsyCap, Luthans and Youssef (2004:48) propose the following guidelines:

- set specific and challenging organisational and personal goals;
- break down the goals to make it more manageable;
- develop alternative or contingency pathways;
- acknowledge the enjoyment in the process of working towards a goal;
- persist in the face of challenges;
- use skills to distinguish when and which alternative pathways to choose;
- use skills to know when and how to set new goals when necessary.

In order to build **optimism**, Luthans and Youssef (2004:49) suggest the following:

- identify beliefs that are self-defeating when dealing with challenges;
- evaluate the accuracy of these self-defeating beliefs; and
- replace self-defeating beliefs with constructive beliefs.

To develop **resilience**, the following are proposed (Luthans & Youssef, 2004:49):

- avoid negative thinking when faced with challenges;
- test the accuracy of beliefs; and
- remain calm and focused when facing stressful situations.

As mentioned in Chapter 2, it has been established that employees who are engaged with their work (and have high levels of PsyCap), are more productive and strive to reach the organisational goals. Toor and Ofori (2010:343) state that PsyCap can have huge benefits for organisations, *inter alia* developing a strong workforce, equipping employees to deal better with environmental challenges and reach desirable outcomes. Luthans, Avey and Patera (2008:217) have found that a short web-based training intervention focused on hope, efficacy, resilience and optimism as indicators, increased the participants' PsyCap. Levene (2015:40) states that interventions in positive psychology "are a core method for affecting change in the target individual and may be a key element of employee engagement's foundation in positive psychology ... interventions are a fundamental method of provoking wanted change in the target individual". In a study conducted by Luthans *et al.* (2010:57) it was established that PsyCap development through a short training intervention led to an improvement in participants' job performance. This concurs with the findings of Luthans, Avey, Avolio, Norman and Combs (2006:391), who indicated that a very brief and focused PsyCap intervention (PCI) can increase participants' PsyCap, which ultimately can result in an increase in revenue of an organisation. The ability to quantify the performance impact of PsyCap is significant in bridging the gap between managerial practices and academic research (Youssef-Morgan, 2014:138).

In order to increase work engagement, Bakker *et al.* (2011a:21) propose the following:

- establish policies that integrate engagement into decisions regarding performance management and career development;
- place transformational leaders in strategic positions to enhance and encourage work engagement. Bakker *et al.* (2011a) established that work engagement are contagious and can easily spread across colleagues and leaders have a special role in fostering a climate of work engagement. This is supported by Walumbwa, Peterson, Avolio and Hartnell (2010:956);
- increase job resources, redesign jobs, develop social support and change work procedures to enhance feedback; and
- job rotation and changing positions should be investigated in order to challenge employees and stimulate learning.

Bakker, Albrecht and Leiter (2011b:85) are of the opinion that engagement should be a win-win situation for employers as well as employees, and that these parties need to “craft a positive, trusting, civil, respectful and mutually beneficial working relationship such that all parties genuinely believe there is the potential for equity, fairness, opportunity and meaningful growth within the system”. They propose the following:

- establish and communicate a clear vision;
- monitor employee’s perception of climate, resources and demands on a regular basis; and
- invest in joint consultative committees to monitor job design, resource allocation, workloads, productivity and innovation.

Gruman and Saks (2011:129) state that employee engagement are enhanced when personal goals are incorporated into organisational objectives.

Peterson, Luthans, Avolio, Walumbwa and Zhang (2011:446) are of the opinion that PsyCap may be useful to human resource processes as organisations may decide to assess employees’ or prospective employees’ level of PsyCap to determine which employees will be suitable for specific positions. The level of a person’s PsyCap could be an important resource when considering a person for a challenging and complex task and

the development of PsyCap should be incorporated in an organisation's talent development programs (Walumbwa *et al.*, 2010:957).

In research conducted by Avey *et al.* (2010:398), three implications for managers and organisations are mentioned in relation to the effect of PsyCap on work performance: (1) target PsyCap in developmental interventions; (2) use PsyCap in HR metrics to predict employee performance; and (3) use PsyCap in selection batteries in order to select and retain candidates who have high levels of PsyCap, resulting in work engagement. These findings concur with previous research mentioned in this section. It is worthwhile for management to pay attention to these recommendations as Bakker and Demerouti (2008:215) state that there are at least four reasons why employees who are engaged, perform better than non-engaged employees: they experience a variety of positive emotions, are healthier, create their own job resources and motivate other employees to be more engaged.

Schaufeli and Salanova (2013:407) propose a phase of development of work engagement called 'amplification' which focuses on "positive interventions that promote, increase and improve employee health and wellbeing, including work engagement". Strategies to enhance work engagement that are suggested includes the evaluation of employees, re-designing and/or changing the workplace, promotion of transformational leadership, enhancement of training at work and greater focus on career management.

Recommendations for future research

The correlation coefficients in Chapter 4 indicated that there is a positive relationship between PsyCap and WE and most of the hypotheses were accepted. Therefore it is possible that these relationships may be true in future studies in different industries and organisations within South Africa. The sample size in this study was fairly large, however it would be useful if larger samples could be used in future studies. Furthermore, the sample in this study was mainly black females and a more diverse sample would be beneficial in order to provide results which are more representative of the current South African demographics.

Studies related to PsyCap in the South African context would be highly beneficial to the field of POB as South Africa provide unique organisational context which has not yet been explored. Most of the research in the field of PsyCap was conducted by Luthans and his

colleagues in America and thus there is a need for research to be conducted in other countries and contexts in order to generalise the importance thereof in the workplace.

As most of the research that has been conducted so far has established that PsyCap leads to better work performance the questions still remains: does better work outcomes lead to the improvement of PsyCap?

Researchers have also indicated that PsyCap as a state-like construct are best understood through longitudinal research rather than cross-sectional design (Sridevi & Srinivasan, 2012:34) and future research should opt to consider this suggestion.

5.4. Limitations

The study identified the following limitations which are shortly discussed.

The first limitation was that data collection took place by means of self-report measurement instruments. This method is criticised as it is prone to social desirability bias where respondents report admirable traits and refrain from reporting undesirable traits. This method of data collection is however widely used in social science research and in research conducted by Johnson, Rosen and Djurdjevic (2011:759) it was found that by measuring the lower dimensions separately from the higher order construct, there was sufficient evidence of procedural and statistical techniques for controlling common method variance. In order to eliminate this problem, future research could obtain data from managers and/or colleagues.

A second limitation is that the sampling method used during this research limits the generalisation of the results as the sample was restricted to one particular industry and replication is needed in this regard.

A third limitation would be that the cross-sectional design utilised in this study does not allow for causality between the different variables to be determined. The data collection was conducted within a limited timeframe and from a limited group of participants and therefore only provides a snapshot of the particular variables over a particular point in time. As these variables are state-like and thus open for change, the findings of this study can only be generalised across a defined population.

5.5. Contribution of the study

This study makes a contribution to the literature on positive organisational behaviour constructs as the results of the study confirm previous findings which indicate that there is a positive relationship between PsyCap and WE within the South African context. These findings indicate that the four constructs of PsyCap, namely hope, efficacy, resilience and optimism, have a direct influence on an employee's work engagement. As far as it could be ascertained, no studies have been conducted in the poultry hatchery industry in South Africa containing the constructs of PsyCap and WE. Therefore, the results of this study supplement the growing body of research on POB. The primary aim of this study was to investigate the relationships between PsyCap levels and work engagement in the poultry hatchery industry and to ascertain whether any of these variables have a predictive nature. This aim was achieved and it is deduced that by understanding the nature of the relationship between PsyCap and WE, it will follow that by measuring the level of PsyCap in employees, the level of their work engagement will be predictable.

By taking cognisance of the findings of this study, organisations and their human resource department would benefit by appointing and retaining staff who are engaged in their work. Furthermore, by providing interventions to enhance the PsyCap constructs, a productive environment will be created where employees can immerse themselves in their work.

5.6. Conclusion

Jack Welch, former CEO of General Electric, made the following statement: "There are only three measurements that tell you nearly everything you need to know about your organisation's overall performance: employee engagement, customer satisfaction, and cash flow. It goes without saying that no company, small or large, can win over the long run without energized employees who believe in the mission and understand how to achieve it" (Frontstream quotes).

The world and organisations are continuously changing and faced with increased challenges. In order to give organisations a competitive advantage, it is crucial to have a work force which is engaged in their work; employees who are devoted and skilled to reach the organisational goals. Work engagement plays a significant role in an organisation as disengagement of employees leads to a lack of motivation and

commitment. These are emotions which impacts negatively on an organisation. The understanding of the relevance and importance of the PsyCap constructs and the relevant interventions to enhance these constructs, could be the answer to problems relating to work engagement.

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ANNEXURE A



FOURIE'S POULTRY FARMS (PTY) LTD

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March 2016

TO WHOM THIS MAY CONCERN:

I, the undersigned,

Dr C van der Merwe

in my capacity as Human Resource Manager of Fourie's Poultry Farms(Pty) Ltd t/a Chubby Chick Potchefstroom, herewith gives permission to Mrs Sonya Bekker (student number 10092870) to conduct research at this organisation relating to her mini-dissertation to be submitted for the partial fulfilment of the Master's degree in Business Administration at the Potchefstroom Campus of the North-West University.

The title of the mini-dissertation is "Exploring the relationship between psychological capital and work engagement" and questionnaires pertaining to these constructs can be distributed to employees of Chubby Chick. Research to be conducted during 2016.

Dr C van der Merwe

ANNEXURE B

Dear Participant

You are hereby invited to participate in a research study which is in partial fulfilment of the requirements for my Master's Degree in Business Administration at the NWU (Potchefstroom Campus). This research aims to examine the relationship between Psychological Capital and Work Engagement. Your participation in this study is voluntary and participants will remain anonymous.

Chubby Chick has given permission for this research to be carried out and the information which will be obtained from this data will be treated with strict confidentiality.

Please take note that the confidentiality and anonymity will be ensured, and that the research will be conducted purely for academic purposes

If you have any queries regarding this study, please contact me at sonya.bekker@nwu.ac.za.

I thank you for taking the time to assist me in this research.

Yours sincerely

Sonya Bekker

018-299-1484

(Supervisor: Dr. Marita Heyns, PBS)

BIOGRAPHICAL QUESTIONNAIRE

The following information is requested in order for meaningful analysis.

PART 1: DEMOGRAPHIC INFORMATION

Please tick the appropriate box:

1. AGE:

1. Under 20 2. 20 – 29 years 3. 30 – 39 years old 4. 40 – 49 years old
 5. 50 – 59 years old 6. Older than 60

2. GENDER:

1. Male 2. Female

3. EDUCATIONAL QUALIFICATIONS (Mark only the highest level of education)

1. Grade 11 or lower 2. Grade 12 (Matric) 3. Post Matric qualification (diploma)
 4. University degree 5. Postgraduate degree

4. RACE

1. Black 2. Coloured 3. Indian 4. Asian 5. White

5. WHAT IS YOUR HOME / FIRST LANGUAGE?

1. Afrikaans 2. English 3. Sesotho 4. Setswana 5. isiXhosa
 6. isiZulu 7. Other (please specify) _____

6. HOW MANY YEARS HAVE YOU BEEN WORKING FOR THE ORGANISATION?

1. 1-4 years; 2. 5-9 years; 3. 10-14 years; 4. longer than 14 years

7. POSITION IN THE ORGANISATION

1. Managerial; 2. Non managerial; 3. Administrative: 4. Support staff
 5. Other (please specify) _____

8. EMPLOYMENT STATUS

1. Permanent; 2. Part time; 3. Other (please specify) _____

9. MARITAL STATUS

1. Married 2. Divorced 3. Single 4. Widowed 5. Co-habitation with partner

RESEARCH QUESTIONS

SECTION A: PSYCHOLOGICAL CAPITAL

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

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
1. I feel confident analysing a long-term problem to find a solution.	1	2	3	4	5	6
2. I feel confident representing my work area in meetings with management.	1	2	3	4	5	6
3. I feel confident contributing to discussions about the company strategy.	1	2	3	4	5	6
4. I feel confident helping to set targets / goals in my work area.	1	2	3	4	5	6
5. I feel confident contacting people outside the company (suppliers, customers) to discuss problems	1	2	3	4	5	6
6. I feel confident presenting information to a group of colleagues.	1	2	3	4	5	6
7. If I should find myself in a jam at work, I think of many ways to get out of it.	1	2	3	4	5	6
8. At the present time, I am energetically pursuing my work goals.	1	2	3	4	5	6
9. There are lots of ways around any problem.	1	2	3	4	5	6
10. Right now I see myself as being pretty successful at work.	1	2	3	4	5	6

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
11. I can think of many ways to reach my current work goals.	1	2	3	4	5	6
12. At this time, I am meeting the work goals that I have set for myself.	1	2	3	4	5	6
13. When I have a setback at work, I have trouble recovering from it, moving on.	1	2	3	4	5	6
14. I usually manage difficulties one way or another at work.	1	2	3	4	5	6
15. I can be "on my own", so to speak, at work if I have to.	1	2	3	4	5	6
16. I usually take stressful things at work in stride.	1	2	3	4	5	6
17. I can get through difficult times at work because I've experienced difficulty before.	1	2	3	4	5	6
18. I feel I can handle many things at a time at this job.	1	2	3	4	5	6
19. When things are uncertain for me at work, I usually expect the best.	1	2	3	4	5	6
20. If something can go wrong for me work-wise, it will.	1	2	3	4	5	6
21. I always look on the bright side of things regarding my job.	1	2	3	4	5	6
22. I'm optimistic about what will happen to me in the future as it pertains to work.	1	2	3	4	5	6
23. In this job, things never work out the way I want them to.	1	2	3	4	5	6
24. I approach this job as if "every cloud has a silver lining".	1	2	3	4	5	6

SECTION B: WORK ENGAGEMENT

The following statements are about how you feel at work. Please read each statement carefully and decide if you ever feel this way about your work. If you have never had this feeling, cross the “0” (zero) in the space after the statement. If you have had this feeling, indicate how often you feel it by crossing the number (from 1 – 6) that best describes how frequently you feel that way.

0 = Never; 1 = Almost never / a few times a year or less; 2 = Rarely / once a month or less; 3 = Sometimes / a few times a month; 4 = Often / once a week; 5 = Very often / a few times a week; 6 = Always / every day

	Never	Almost never	Rarely	Sometimes	Often	Very often	Always
1. At my work, I feel bursting with energy.	0	1	2	3	4	5	6
2. I find the work that I do full of meaning and purpose.	0	1	2	3	4	5	6
3. Time flies when I'm working.	0	1	2	3	4	5	6
4. At my job, I feel strong and vigorous.	0	1	2	3	4	5	6
5. I am enthusiastic about my job.	0	1	2	3	4	5	6
6. When I am working, I forget everything else around me.	0	1	2	3	4	5	6
7. My job inspires me.	0	1	2	3	4	5	6
8. When I get up in the morning, I feel like going to work.	0	1	2	3	4	5	6
9. I feel happy when I am working intensely.	0	1	2	3	4	5	6
10. I am proud on the work that I do.	0	1	2	3	4	5	6
11. I am immersed in my work.	0	1	2	3	4	5	6
12. I can continue working for very long periods at a time.	0	1	2	3	4	5	6
13. To me, my job is challenging.	0	1	2	3	4	5	6
14. I get carried away when I'm working.	0	1	2	3	4	5	6

	Never	Almost never	Rarely	Sometimes	Often	Very often	Always
15. At my job, I am very resilient, mentally.	0	1	2	3	4	5	6
16. It is difficult to detach myself from my job.	0	1	2	3	4	5	6
17. At my work, I always persevere, even when things do not go well.	0	1	2	3	4	5	6

ANNEXURE C

Reliability of resilience

Reliability statistics

Cronbach Alpha	Cronbach Alpha based on standardised items	n of items
.39	.42	6

Inter-item Correlation Matrix

	A14	A15	A16	A17	A18	A13_r
A14	1.00	.23	.19	.28	.20	-.12
A15	.237	1.000	.19	.18	.22	-.19
A16	.193	.19	1.00	.20	.23	-.18
A17	.281	.18	.20	1.00	.22	-.02
A18	.201	.22	.23	.22	1.000	-.01
A13_r	-.126	-.19	-.18	-.02	-.01	1.00

Summary Item Statistics

	Mean	Min	Max	Range	Max/Min	Variance	n of items
Inter-item correlations	.10	-.19	.28	.47	-1.41	.02	6

Item-Total Statistics

	Scale mean if item deleted	Scale variance if item deleted	Corrected Item-total correlation	Squared multiple correlation	Cronbach Alpha if item deleted
A14	19.89	15.63	.29	.14	.29
A15	19.94	15.52	.22	.13	.32
A16	20.70	14.53	.22	.12	.32
A17	19.90	14.53	.33	.13	.25
A18	20.00	14.36	.34	.12	.25
A13_r	20.89	20.31	-.18	.07	.57

Reliability of optimism

Reliability statistics

Cronbach Alpha	Cronbach Alpha based on standardised items	n of items
.36	.39	6

Inter-item Correlation Matrix

	A19	A21	A22	A24	A20_r	A23_r
A19	1.00	.32	.35	.32	-.107	.074
A21	.32	1.00	.28	.24	-.14	-.099
A22	.35	.28	1.00	.22	-.12	-.079

	A19	A21	A22	A24	A20_r	A23_r
A24	.32	.24	.22	1.00	-.010	.115
A20_r	-.10	-.14	-.12	-.010	1.00	.100
A23_r	.07	-.09	-.079	.11	.10	1.00

Summary Item Statistics

	Mean	Min	Max	Range	Max/Min	Variance	n of items
Inter-item correlations	.09	-.14	.35	.50	-2.37	.03	6

Item-Total Statistics

	Scale mean if item deleted	Scale variance if item deleted	Corrected Item-total correlation	Squared multiple correlation	Cronbach Alpha if item deleted
A19	20.02	12.01	.35	.23	.18
A21	19.36	14.71	.21	.17	.30
A22	19.47	13.90	.22	.17	.28
A24	19.88	12.14	.34	.15	.19
A20_r	20.85	16.32	-.08	.04	.49
A23_r	20.82	14.58	.058	.05	.40

Reliability statistics (without reversed scored items)

Cronbach Alpha	Cronbach Alpha based on standardised items	n of items
.62	.62	4

Inter-item Correlation Matrix

	A19	A21	A22	A24
A19	1.00	.32	.35	.33
A21	.32	1.00	.28	.24
A22	.35	.28	1.00	.22
A24	.33	.24	.22	1.00

Summary Item Statistics

	Mean	Min	Max	Range	Max/Min	Variance	n of items
Inter-item correlations	.29	.22	.35	.12	1.57	.002	4

Item-Total Statistics

	Scale mean if item deleted	Scale variance if item deleted	Corrected Item-total correlation	Squared multiple correlation	Cronbach Alpha if item deleted
A19	13.54	7.62	.47	.22	.49
A21	12.89	9.64	.39	.15	.56
A22	13.01	8.87	.39	.16	.55
A24	13.40	8.40	.36	.14	.58