

PSYCHOLOGICAL CAPITAL IN NAMIBIAN STATE-OWNED ENTERPRISES: MEASUREMENT, ANTECEDENTS AND OUTCOMES

Simeon Lasarus Nangolo Amunkete MA, M.Com

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Promoter: Prof. S. Rothmann

Vanderbijlpark

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“Let us be alive with courage and boldness, let us labour relentlessly, struggle ceaselessly, to serve humankind both as scientists and as professionals.” DJW Strümpfer

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PREFACE AND DECLARATION

The article format was chosen for the current study. The researcher, Simeon L.N. Amunkete, conducted the research and wrote the manuscripts. Professor Sebastiaan Rothmann acted as promoter. Three manuscripts were written and/or submitted for publication in the following journals:

Manuscript 1: Published in *Journal of Psychology in Africa*, 25(4), 271–281.

Manuscript 2: Submitted for publication in *South African Journal of Industrial Psychology*.

Manuscript 3: Submitted for publication in *South African Journal of Economic and Management Sciences*.

I declare that “Psychological capital in Namibian state-owned enterprises: Measurement, antecedents and outcomes” is my own work and that all the sources that I have used or quoted are indicated and acknowledged by means of complete references.

DECLARATION OF LANGUAGE EDITOR

Katherine Carter, Ph.D.

PO Box 41288
Ausspannplatz
Windhoek, Namibia

Email: carterkatherine@fastmail.fm
Phone: (264)813415100

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To whom it may concern

I hereby declare that I edited the PhD thesis entitled “Psychological capital in Namibian state-owned enterprises: Measurement, Antecedents and Outcomes” written by Simeon Amunkete.

I am an editor based in Windhoek, Namibia.

Yours sincerely,

Dr. Katherine Carter *Dr. Katherine Carter*

SUMMARY

Title: Psychological capital in Namibian state-owned enterprises: Measurements, antecedents and outcomes.

Key words: State-owned enterprise, psychological capital, positive organisational behaviour, job satisfaction, employee engagement, intention to leave, authentic leadership, supportive organisational climate, job performance and organisational performance

The performance of state-owned enterprises in Namibia has been in the spotlight for many years, resulting in the Government of the Republic of Namibia to introduce interventions and strategies to address and improve this performance. The poor performance of state-owned enterprises has been studied in terms of financial aspects with less attention, however, on human resources as a key success factor in contributing to performance. Studying performance in terms of the human resources is an important area for research and intervention.

The Government introduced several measures to ensure the efficient governance and monitoring of state-owned enterprises and to ensure that they are performing to the satisfaction and expectations of the stakeholder. These measures included the introduction of the State-Owned Enterprises Act (Act 2 of 2006) of Namibia, as well as governance structures to ensure that the performance of state-owned enterprises is properly maximised. Despite these efforts by the Government to regulate state-owned enterprises with the intention to improve performance, to date the poor performance of state-owned enterprises is still a topical issue in Namibia. Almost a decade after the promulgation of the State-Owned Enterprises Act, in 2006, the government is still financially bailing out a number of the state-owned enterprises. State-owned enterprises need to take a positive approach that recognise and leverage human resources for contribution to sustainable growth, competitive advantage and performance. Positively oriented high-performance work practices are conceptualised within the context of positive organisational behaviour. Positive organisational behaviour as characterised in the form of psychological capital, with antecedents such as authentic leadership and supportive organisational climate and employee outcomes such as job satisfaction, intention to leave, engagement in the Namibian state-owned enterprises context are the main focus of this study. The study aimed to assess the relationship between psychological capital, authentic leadership, supportive organisational climate, job satisfaction, intention to leave, employee engagement

and performance for employees in state-owned enterprises in Namibia. A cross-sectional survey design was used to gather data regarding all these constructs as experienced by employees. A convenience sample ($N = 452$) of employees from 20 state-owned enterprises participated in the study. The measuring instruments used were the Psychological Capital Questionnaire, Performance-related Attitudinal Questionnaire, Job Satisfaction Scale, Turnover Intention Scale, Engagement Scale, Authentic Leadership Questionnaire, Supportive Organisational Climate Questionnaire and a biographical questionnaire.

The results of study 1 showed that authentic leadership was positively associated with psychological capital (i.e. experiences of hope, optimism, self-efficacy and resilience) and job satisfaction. Authentic leadership affected job satisfaction indirectly via psychological capital. Psychological capital had a medium to large indirect effect on employees' intentions to leave. The findings suggest that authentic leadership and psychological capital explain job satisfaction and retention of employees in state-owned enterprises.

Study 2 showed that authentic leadership and psychological capital predicted employee engagement. A supportive organisational climate was related to employee engagement on individual level, but only if authentic leadership and psychological capital were not included in the model. Psychological capital mediated the relation between authentic leadership and employee engagement on an individual level in state owned enterprises.

The results of study 3 showed that authentic leadership and a supportive organisational climate had a positive impact on psychological capital. Psychological capital predicted job performance on an individual level. Psychological capital was not associated with organisational performance.

Recommendations for interventions to promote psychological capital, its antecedents and outcomes were made.

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CHAPTER 1

INTRODUCTION TO THE STUDY

This thesis investigates the relation between psychological capital, antecedents (authentic leadership and supportive organisational climate) and outcomes (job satisfaction, turnover intention, work engagement and performance) in Namibian state-owned enterprises.

The background and motivation of the research, and the problem statement are discussed in this chapter. The general and specific research objectives are set out, the research method explained and a division of chapters outlined.

1.1 Background and Motivation of the Research

The wave of privatisation of public enterprises in most parts of the world gained momentum at the end of the 20th century (Shipanga & Strompen, 2010). Shipanga and Strompen (2010) argue that the developing world followed the same trend, as governments aim to improve fiscal positions and at the same time enhance delivery of goods and services. In Namibia, after independence in 1990, the Government established a number of state-owned enterprises across all sectors to provide goods and services to the inhabitants of the country in a more efficient manner. Murangi (2010) stated that during the period from 1995 to 2005, the Government of the Republic of Namibia created over 50 state-owned enterprises. Many of these state-owned enterprises (SOEs) have reportedly not been performing well (Ihuhwa, 2013). According to Dentlinger (2006), the State-owned Enterprises Act was promulgated in 2006 after it was found that several of these enterprises were burdened by poor performance, mismanagement and corruption. On several occasions, these organisations approached the Government for bailouts in order to meet both their budgetary and mandatory requirements (Menges, 2015).

All SOEs are 100% owned by the Government of the Republic of Namibia, with the voting shares held equally by the shareholding ministers, i.e. the Minister of Finance and the SOE Line Minister. According to the SOE Act (Act 2 of 2006) of Namibia, a state-owned enterprise is an entity that is named in Schedule 1 of this Act. Schedule 1 of the SOE Act lists 52 SOEs. Most of them were established by an Act of Parliament, a statutory act, and 16 are companies

which are subject to the provisions of the Companies Act. The SOEs were classified into three tiers based on their size and contribution to the economy. The three key indicators that were used to classify the SOEs in categories were: total revenue, total asset, and total primary employment (Namibia State-Owned Enterprises Directive, 2010). In addition to the three tiers, SOEs are also divided into three groupings of enterprises, namely economic and productive, regulatory, and service-rendering enterprises.

The aim of the State-Owned Enterprises Act is to ensure that the SOEs are performing to the satisfaction and expectations of the stakeholder, i.e. the Government of Namibia. The Act also aims to regulate the efficient governance and monitoring of SOEs. The State-Owned Enterprises Governance Council (SOEGC) was established consisting of the Prime Minister, the Attorney General, Minister of Finance, and Minister of Trade and Industry, and the Director-General of the National Planning Commission. The SOEGC is mandated by the Act to lay down the directives to the board of directors, chief executive officers, and senior management of SOEs. The SOEGC is also tasked with the responsibility of reviewing and approving the business plans, budgets and investments of SOEs, as a way to improve performance and curb financial losses suffered by many SOEs over the years. The SOEGC is under the supervision and control of the Cabinet of the Government of Namibia and has a secretariat which is responsible for the operational activities of the SOEGC.

The SOEs have significant budgets and employ significant numbers of people. The SOE Act makes provision for the performance agreements between the line ministries and the respective SOEs. The role of the performance agreements is to enable the line ministry to measure the efforts of the board members in terms of a range of indicators (Shipanga & Strompen, 2010). The SOE Act also makes provision for the SOEs to have a performance management system in place, based on both the SOEs' strategies that are envisioned to be accomplished and the job profiles for employees, including key performance areas and key performance indicators. The SOEs are required by law to submit copies of their business and financial plans to the SOEGC in which the objectives, strategies and finances are outlined, as well as the plans for meeting those objectives.

The question remains whether this Government effort to regulate the SOEs – with the intention of improving performance – will make the SOEs sustainable and eventually lead to the economic and social development of the country. To date, the poor performance of SOEs is

still a relevant issue in Namibia. After the promulgation of the SOE Act in 2006, and after the establishment of the SOEGC, the government was still bailing out some SOEs five years later (Menges, 2015). The poor performance of the SOEs has been studied in terms of financial aspects, with less attention if any, on the SOEs' human resources as a key success factor in contributing to the performance of the SOEs. In their study on the SOEs in China, Luthans et al. (2008) assert that to gain a competitive advantage, SOEs must better leverage the human capital for a higher return and competitive advantage. This is an appropriate time for the SOEs to take a positive approach by recognising and leveraging human resources for contribution to sustained growth and competitive advantage. Positively oriented high-performance work practices are conceptualised within the context of positive organisational behaviour and the psychological capital. Studying the psychological capital, its antecedents and outcomes in the Namibian context will be the main focus of this study.

1.2 Problem Statement

Luthans (2002b, p. 59) defines positive organisational behaviour 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.” Positive psychological constructs that meet the inclusion criteria include hope, resilience, optimism and self-efficacy, and when combined, represent what has been termed psychological capital (Luthans & Youssef, 2004; Luthans et al., 2007a). This composite construct has been defined as “an individual's positive psychological state of development that is characterised by: (a) having confidence (efficacy) to take on and put in the necessary effort to succeed at challenging tasks; (b) persevering towards goals and, when necessary, redirecting paths to goals (hope) in order to succeed; (c) making a positive attribution (optimism) about succeeding now and in the future; and (d) when beset by problems and adversity, sustaining and bouncing back and even beyond (resilience) to attain success” (Luthans et al., 2007a, p. 3).

Psychological capital has been demonstrated to be important for outcomes at both individual and group levels of analyses (Luthans et al., 2007a; Peterson, Luthans, Avolio, Walumbwa, and Zhang, 2011). According to Luthans et al. (2007a), positive organisational behaviour proposes new evolving efforts as positive methods to develop and manage human resources in today's workplace. From research conducted in other parts of the world, including the United

States of America, psychological capital has been found to predict employees' outcomes in organisations such as performance and satisfaction (Luthans et al., 2007b; Luthans et al., 2008). Other relevant studies were also conducted in China, where psychological capital was found to be a significant and unique predictor of performance (Luthans et al., 2008). A study in Portugal by Rego, Marques, Leal, Sousa, and Cunha, (2010) concluded that psychological capital predicts employee performance, especially when the psychological capital components are considered separately rather than being merged into an overall construct.

The term capital has been used “to represent the value of human resources (human capital) as well as in relation to other concepts (e.g. intellectual capital, social capital, and cultural capital)” (Luthans et al., 2007a, p. 542). The term psychological capital is used “to represent individual motivational tendencies that accrue through positive psychological constructs such as efficacy, optimism, hope, and resilience” (Luthans et al., 2007a, p. 542). Psychological capital is established in a shape of an investment of psychic resources that results in getting experiential rewards from the present moment while also increasing the likelihood of future benefit. It is about the state of the components of a person's inner life (Luthans et al., 2007a).

Psychological capital has been proposed as “a common underlying capacity critical to human motivation, cognitive processing, striving for success, and resulting performance in the workplace” (Peterson et al., 2011, p. 429). Psychological capital draws its foundation and explanatory mechanisms from theory building in work motivation (Stajkovic, 2006), positive psychology (Lopez & Snyder, 2009), and Bandura's social cognition (1986, 1997) and agentic (2008) theories. Based on these theories, psychological capital has been defined as consisting of four positive psychological resources, namely hope, resilience, self-efficacy and optimism (Peterson et al., 2011). Together, these four resources form a higher-order core construct (i.e. psychological capital). Each of these four components has a considerable theory and research history that contribute to the development of an integrative theoretical foundation for psychological capital (Luthans et al., 2007a).

Self-efficacy represents a positive belief and was defined for the workplace by Stajkovic and Luthans (1998, p. 66) as “the employee's conviction or confidence about his or her abilities to mobilize the motivation, cognitive resources or courses of action needed to successfully execute a specific task within a given context.” Self-efficacy was found to have a strong positive relationship with work-related performance (Stajkovic & Luthans, 1998b). Employees

may be more or less efficacious in the work domain, for example in specific tasks. Bandura (1998) concludes that comparative studies show that dominant-linked measures of perceived efficacy are good predictors of motivation and action.

Seligman (1998) defines optimists as “those who make internal, stable and global attributions regarding positive events (e.g. task accomplishment) and those who attribute external, unstable, and specific reasons for negative events (e.g. a missed deadline).” Therefore, optimism as a facet of psychological capital is associated with a positive outcome, outlook on events, which includes positive emotions and motivation and has the caveat of being realistic (Luthans, 2002a). Realistic optimism includes an evaluation of what one can and cannot accomplish in a particular situation and hence adds to one’s efficacy and hope. Peterson (2000) asserts that realistic optimism is dynamic and changeable. About self-efficacy, Bandura (1998, p. 56) notes that “evidence shows that human accomplishments and positive well-being require an optimistic sense of personal efficacy to override the numerous impediments to success.” Snyder (2002) draws comparisons between optimism and hope and notes that optimism is a goal-based cognitive process that operates whenever an outcome is perceived as having substantial value. Seligman (1998) found that optimism, when directly applied to the workplace, had a significant and positive relationship with performance of insurance sales agents, and in the study of the Chinese factory workers, their optimism was found to have a significant relationship with their rated performance. Youssef and Luthans (2007) reported that employees’ optimism related to their performance evaluations and their job satisfaction and work happiness.

Snyder, Irving, and Anderson (1991, p. 287) define hope as a “positive motivational state that is based on an interactively derived sense of successful (a) agency (goal-directed strategy) and (b) pathways (planning to meet goals).” As a psychological construct, hope consists of three major conceptual foundations: agency, pathways and goals. The agency component of hope can be thought of as having the will to accomplish the intended or desired effect (Snyder, 2000). Therefore, hope involves the agency or motivational energy to pursue a goal, which is a state. Hope constitutes a will to succeed and the ability to identify, clarify, and pursue the way to success (Snyder, 2000).

Luthans et al. (2007a, p. 546) argue that although the construct “hope” has considerable face validity and intuitive appeal, and research supports its relationship with academic, athletic, and health outcomes (Snyder, 2000), to date very few studies have explored its impact in the

workplace. For example, an on-going survey found that organisations with respondents reporting higher levels of hope tended to be more successful than those with lower levels of hope (Luthans et al., 2007a, p. 546). Peterson and Luthans (2003) found that fast-food store managers' level of hope correlated with the financial performance of their unit and employee retention and job satisfaction. In another study, the hope level of Chinese factory workers was also found to be related to their supervisory-rated performance and merit salary increases (Luthans, Avolio, Walumbwa, and Li, 2005). Besides these initial findings on relationships with performance, there is also some evidence that hope may be related to desirable work attitudes (Luthans et al. 2005). Recent studies have found that the hope levels of production workers in a small Midwestern factory in the United States were related to their job satisfaction and organisational commitment (Larson & Luthans, 2006). Luthans et al. (2007b, p. 546) concluded that hope was related to employees' satisfaction, organisational commitment, and work happiness.

Resilience is characterised by positive coping and adaptation in the face of significant risk or adversity (Luthans et al., 2007a). Luthans (2002a, p. 702) defines *resilience* as the “positive psychological capacity to rebound, to ‘bounce back’ from adversity, uncertainty, conflict, failure, or even positive change, progress and increased responsibility.” According to Luthans et al. (2007a), empirical studies have shown that positive emotions enhance resilience in the face of negative events, which reflect the state-like quality thereof. Clinical psychologists also note that resilience can increase when the individual returns to levels above homeostasis after an adverse event (Richardson, 2002). Individuals may actually become more resilient to an adverse situation each time they effectively bounce back from a previous setback. Such positive reactions have been found in studies of emotions to have upward spiralling effects (Fredrickson & Joiner, 2002). Luthans et al. (2005) found a significant relationship between the resilience of Chinese workers who were undergoing significant change and transformation and their rated performance. Luthans et al. (2007a) summarised the results of various studies and pointed out that resilience was related to health, happiness, satisfaction, commitment and performance of employees.

When the four positive resources are combined, the result has been conceptually and empirically demonstrated to be a higher-order, multidimensional construct labelled psychological capital (Peterson et al., 2011). Peterson et al. (2011) concluded that psychological capital is the underlying core construct consisting of four component resources.

This argument of psychological capital being classified as a higher-order construct has been supported by Luthans, Avey, Avolio, and Peterson, (2010). They state that the four component resources load on the high-order core construct of psychological capital and indicate convergent and discriminant validity with similar positive core constructs such as core self-evaluations and relevant personality traits such as conscientiousness. Avey, Luthans, and Jensen (2009), quoted by Luthans et al “(2010)”, indicated that there is growing evidence that psychological capital is significantly related to desired employee behaviours (and negatively to undesired behaviours), attitudes (e.g. satisfaction and commitment), and performance.

One of the key characteristics of psychological capital is its openness to change and development. Peterson et al. (2011) are of the opinion that although four components of psychological capital may seem to possess some level of stable qualities, recent research shows that these components can be developed. Rego et al. (2010) confirm this view that while Peterson and Seligman’s (2004) character strengths and virtues are ‘trait-like’ (relatively stable and difficult to change), the psychological capital is ‘state-like’, and thus it is relatively malleable and open to development. This argument was initially explored by Luthans and Youssef (2007), who stated that unlike positive traits, which are characterised by relative stability over time and applicable across situations, positive state-like capacities are open to change. The developmental characteristic of psychological capital as highlighted in several studies has relevance to different human resources management interventions that can take place in organisations.

Psychological capital can also be measured. Luthans et al. (2007b) conducted a study to examine the measurement properties of a survey instrument used to assess such identified psychological capital and to determine its relationship with job satisfaction and performance outcomes. Luthans et al. (2007b) indicated that psychological capital as a whole has more measurement stability than emotional states but is not as stable as personality or self-evaluation traits. Peterson et al. (2011) concluded that psychological capital can be developed through targeted interventions. Based on the findings that psychological capital can be measured and that it can be developed over a period of time, it will be expected from this study to examine whether measures of psychological capital show signs of variability within individuals over time and whether those changes predict performance (Peterson et al., 2011).

1.2.1 Psychological capital and employee and organisational outcomes

Apart from the role that psychological capital has in predicting employee and organisational performance, other employee outcomes such as job satisfaction (Edwards, Bell, Arthur, and Decuir, 2008), work engagement (Rothmann, 2013a), and turnover intention (Hui, Wong, & Tjosvold, 2007; Vecchio & Norris, 1996) also play major roles in determining employee behaviour leading to performance and productivity of organisations. Avey et al. (2012) conducted a meta-analysis and found that psychological capital showed moderate to high correlations with employee and organisational outcomes. More specifically, they found relationships between psychological capital and attitudes such as job satisfaction ($r = 0.54$), commitment ($r = 0.48$), and psychological well-being ($r = 0.57$); psychological capital and multiple measures of performance ($r = 0.26$). According to Edwards et al. (2008), satisfaction and work engagement are important for employee health and well-being. Luthans (2012) reported that psychological capital explained about 25% of the variance in work attitudes and behaviours and 10% of the variance in performance.

Work engagement is defined as the “harnessing of organizational members’ selves to their work role by which they employ and express themselves physically, cognitively and emotionally during role performance” (Kahn, 1990, p. 694). Rothbard and Patil (2012, p. 59) defined engagement as, “... an employee’s psychological presence in a role.” Work engagement comprises three dimensions; namely, a physical component (being physically involved in a task and showing vitality and a positive affective state), a cognitive component (being alert at work and experiencing absorption and involvement), and an emotional component (being connected to job/others while working and showing dedication and commitment) (Macey & Schneider, 2008). Engagement entails the proactive acquiring and application of resources to be energetic, dedicated, and absorbed in one’s work (Rothmann, 2013a).

According to Kreitner and Kinicki (2004, p. 202), job satisfaction is defined as an affective or emotional response towards various facets of one’s job. Job satisfaction is an evaluative judgment about the degree of pleasure an employee derives from his or her job that consists of both affective and cognitive components (Hulin & Judge, 2003; Weiss & Cropanzano, 1996). The relationship between job satisfaction and job performance was studied by many researchers over the past decades and they have developed several theoretical explanations to

explain this relationship. According to Edwards et al. (2008, p.442), social cognitive theories predict that: (a) attitudes towards the job (e.g. job satisfaction) should influence behaviours on the job (as reflected in job performance), (b) behaviours on the job (or rewards produced by performance) lead to the formation of attitudes towards the job, and (c) job satisfaction and job performance are reciprocally related. Edwards et al. (2008) admit that there is stronger support for the notion that job satisfaction causes performance than for the opposite causal direction, i.e. that performance causes satisfaction.

Tett and Meyer (1993) define turnover intention as a conscious and deliberate wilfulness to leave the organisation. Hui et al. (2007) propose that turnover intention relates to job performance. They argue that employees may reduce job input as a result of their turnover intention. They also submit that job performance may be regarded as a form of investment of the employees in the organisation. From the investment perspective, according to Hui et al. (2007), it is unlikely that one will make a substantial investment in a particular job when one is considering quitting the job. Rather, the employees considering turnover develop low expectations of performance that undermine actual performance (Curry, Snyder, Cook, Ruby, and Rehm, 1998). Hui et al.'s (2007) conclusion is that the more likely the employee is to stay with the organisation, the more willing the employee tends to invest in the organisation by performing effectively. On the other hand, Hui et al. (2007,) conclude that the less likely an employee tends to stay with an organisation, the less willing the employee is to invest in the organisation. This means that when employees consider quitting their jobs, they may be less willing to invest in their jobs with high work performance (Hui et al., 2007). Therefore, according to Tett and Meyer (1993), job satisfaction, organisational commitment, and intention to leave are among the most commonly proposed antecedents to turnover.

In their study, Luthans et al. (2007b) propose that psychological capital has a stronger relationship with performance and job satisfaction than the four individual components that comprise it. By considering self-efficacy, hope, optimism, and resilience as important facets of psychological capital rather than focusing on any one individual facet in particular, they expect their combined motivational effects to be broader and more influential than any of the constructs individually. The overall findings of the study of Luthans et al. (2007b) provide evidence that psychological capital accounts for unique variance beyond recognised trait-like personality and core self-evaluations when predicting job satisfaction, affective organisational commitment, and possible turnover intention. The results further indicate that in general,

psychological capital is more consistently related to both performance and satisfaction than each of the individual components. Positive constructs such as hope, resilience, efficacy, and optimism may have a common core that was labelled for convenience as psychological capital and which can be measured and related to performance and satisfaction (Luthans et al., 2007b).

Research shows that psychological capital plays a major role in predicting performance (Avey et al., 2009; Luthans et al., 2007; Peterson et al., 2011) and other employee outcomes such as job satisfaction (Edwards et al., 2008), and turnover intention (Hui et al., 2007; Vecchio & Norris, 1996). Few studies have been conducted regarding the antecedents of psychological capital and employee outcomes. Walumbwa, Avolio, Gardner, Wersning, and Peterson (2010) and Zamahani, Ghorbani, and Rezaei (2011) concluded in their studies that psychological capital mediates a positive relationship between authentic leadership and employee outcomes in the organisations. A study by Luthans et al. (2008) also concluded that psychological capital provides an important mediating link between supportive organisational climate and employee outcomes. For the purpose of this study, authentic leadership and supportive organisational climate will be investigated as two antecedents of psychological capital and employee outcomes.

1.2.2 Antecedents of psychological capital

Authentic leadership, as defined by Clapp-Smith, Vogelgesang, and Avey (2009, p. 229), is “a process by which leaders are deeply aware of how they think and behave, of the context in which they operate, and are perceived by others as being aware of their own and others’ values/moral perspectives, knowledge and strengths.” The authentic leadership process positively influences self-awareness and self-regulated positive behaviours on the part of both leaders and followers, and it stimulates positive personal growth and self-development (Illies, Mogeson, and Nahrgang, 2005). The characteristics of an authentic leader, as outlined by Walumbwa et al. (2008), are that (a) the role of the leader is a central component of their self-concept, (b) they have achieved a high level of self-resolution or self-concept clarity, (c) their goals are self-concordant, and (d) their behaviour is self-expressive. The other attributes of an authentic leader is that he/she is true to him/herself and the exhibited behaviour positively transforms or develops associates into leaders themselves (Illies et al., 2005).

Studies demonstrate that authentic leadership has four components: self-awareness, self-regulation (moral/ethics), relational transparency and balanced processing (Walumbwa et al., 2010; Zamahani et al., 2011). According to Illies et al. (2005), self-awareness refers to “one’s awareness of, and trust in, one’s own personal characteristics, values, motives, feelings, and cognitions.” While engaging in the self-reflective process of gaining self-awareness, either through internal introspection or external evaluations, authentic leaders do not distort, exaggerate or ignore information that has been collected, but rather pay attention to both positive and negative interpretations about themselves and their leadership style (Zamahani et al., 2011). Self-regulation is the process through which authentic leaders align their values with their intentions and actions (Zamahani et al., 2011). This process includes one’s motives, goals and values, which are transparent to followers, leading by example and demonstrating consistency between espoused theories and implementing or integrating those theories (Avolio & Gardner, 2005). Relational transparency encompasses all of the earlier capabilities in the act of open and self-disclosure (Illies et al., 2005). In addition to being self-aware, balanced and congruent in one’s goals, motives, values, identities and emotions, authentic leaders are also transparent in revealing these expressions to their followers (Mazutis & Slawinski, 2008).

Authentic leadership is multidimensional and multilevel (Avolio & Gardner, 2005). Luthans and Avolio (2003) argue that authentic leadership behaviour should cascade from the very top of the culture of the organisations down to the newest employee and that this cascading process is rooted and reinforced by the culture of the organisation. Mazutis and Slawinski (2008) conclude that authentic leaders are those who exhibit the capabilities of self-awareness, balanced processing, self-regulation and relational transparency, and foster the same positive self-development in other organisational members. The study by Zamahani et al. (2011) contributes evidence regarding the important role of psychological capital and authenticity of leaders to attain their followers’ trust and encourage them to better performance. Gaining trust and increasing performance helps to achieve the organisation’s goals. The study concludes that positive attitude and behaviour of leaders has an effective role in how subordinates act in the organisation.

A supportive organisational climate will be treated as the second antecedent of psychological capital and employee outcomes in the present study. Both psychological capital and a supportive context are needed for human resources to achieve sustainable growth and performance (Luthans & Avolio, 2003). Luthans et al. (2008, p. 225) defined a supportive

organisational climate as “the overall amount of perceived support employees receive from their immediate peers, other departments, and their supervisor that they view as helping them to successfully perform their work duties.” Luthans et al. (2008) asserted that this perceived supportive climate relates to desired outcomes (e.g. job satisfaction, work engagement, organisational commitment and low turnover intention). Research on organisational support climate acknowledges the importance of individual factors such as ability and effort in the link between organisational support climate and performance (Gardner & Schermerhorn, 2004; Schermerhorn et al., 1990). Luthans et al. (2008) do not hypothesise a direct relationship between supportive climate and individual employee performance, but they propose that psychological capital may play a mediating role in this relationship. Luthans et al. (2008) also propose that perceptions of a supportive climate may create the positive conditions necessary for psychological capital to flourish. Luthans et al. (2008) found psychological capital to be positively related to performance, satisfaction and commitment. The study by Luthans et al. (2008) showed that psychological capital may play a mediating role between a supportive organisational climate and employee outcomes.

1.2.3 Specific research problems

Various gaps exist in the current knowledge of psychological capital. First, although the concept of positive psychological capital seems attractive from an organisational behaviour perspective, no studies have been conducted regarding the application, validity, reliability and factorial invariance thereof in the Namibian context. Luthans (2012) asserts that sufficient studies regarding the measurement of psychological capital have been conducted. However, Rothmann (2013b) showed that measures developed in the United States of America do not necessarily show factorial invariance in the African context. Research regarding psychological capital has been done mostly in the USA, and to a lesser extent in other countries such as China, Portugal, and Iran. Few studies have explored the reliability and validity of these measures of psychological capital in the African context.

Second, research is needed regarding the antecedents and outcomes of psychological capital, not only in the African context, but also internationally. The field of positive psychology from which the concept psychological capital emerged is relatively new compared to other fields of psychology (Peterson, 2000). Information is needed regarding the relation between

psychological capital and its possible antecedents in a multilevel design which includes both individual and organisational levels (Luthans, 2012).

Third, studies have just begun to expand psychological capital into other units of analysis, alternative measures, and domains of application (Luthans, 2012). No studies have been found which took a multilevel approach in studying psychological capital, the antecedents and outcomes within and between organisations. Research is also needed regarding the possible mediating and moderating effects of psychological capital on the relationships between antecedents and outcomes thereof.

Fourth, although studies have been conducted regarding the relations between employee outcomes, such as performance, job satisfaction, organisational commitment and intention to stay, and psychological capital, various studies had methodological shortcomings, especially regarding the data-analysis strategies and the use of latent variable modelling.

The research questions that pertain to this study of SOEs are formulated as follows:

- Do psychological capital and organisational antecedents impact employee outcomes (including job satisfaction, work engagement, turnover intention) on individual and organisational levels in state-owned enterprises?
- Does psychological capital mediate the relationship between antecedents (including authentic leadership and supportive organisational climate) and employee outcomes in state-owned enterprises?
- What are the relations among psychological capital, supportive organisational climate, and performance on individual and organisational levels in state-owned enterprises?

1.3 Research Objectives

1.3.1 General objective

The general objective of this study was to investigate the measurement, antecedents and outcomes of psychological capital among employees and organisations in state-owned

enterprises and to study its impact on employees' outcomes such as job satisfaction, work engagement, organisational commitment, turnover intention and performance.

1.3.2 Specific objectives

The specific objectives of this research included the following:

- To conceptualise psychological capital and its antecedents and outcomes from the literature.
- To investigate the relations among authentic leadership, psychological capital, job satisfaction and intention to leave within state-owned enterprises.
- To investigate the indirect effects of antecedents (including authentic leadership and supportive organisational climate) via psychological capital on employee outcomes.
- To test a multilevel structural model of psychological capital and its antecedents and outcomes for individuals and organisations within the state-owned enterprises context.
- To investigate the relations among psychological capital, supportive organisational climate, and performance using a multilevel model in the context of state-owned enterprises.
- To propose appropriate recommendations to state-owned enterprises with regard to the consideration of psychological capital as a potential tool for improving employee outcomes.

1.4 Research Method

1.4.1 Research design

This study was conducted within the quantitative (positivistic) research paradigm of social sciences (Leedy & Ormrod, 2010; Bless, Higson-Smith & Sithole, 2014). In this research paradigm, research problem is stated in a very specific and set terms and original set of research goals are followed firmly. It is a cross-sectional, theoretical and descriptive research that utilised a survey to collect data regarding the impact of the psychological capital on the employees' outcomes within the Namibian state-owned enterprises. One of the most important considerations in descriptive studies is to collect accurate information or data on the domain phenomena which are under investigation (Mouton & Marais, 1996, p. 44).

Within the cross-sectional design, three designs were utilised (Byrne, 2012; Muthén & Muthén, 2008-2014):

- A multilevel latent model design was used to assess a structural model with a focus on variances within (individual) and between (organisational) levels.
- Latent variable modelling was used to investigate the fit of the hypothesised models as well as indirect and interaction effects.

1.4.2 Participants

The data for this study was collected from available employees in the SOEs. Since the researcher had no way of forecasting or guaranteeing that each employee in the state-owned enterprise was going to be represented in the sample, non-probability sampling, specifically convenience sampling (also known as accidental or availability sampling) was used to select the sample for this study. Convenience sampling involves choosing the nearest individuals to serve as respondents and continuing that process until the required sample size has been obtained (Cohen, Manion and Morrison, 2013). A total of 452 respondents representing 20 organisations took part in this study. Consideration was made to ensure that this sample included representations of employees in different categories in the SOEs, i.e. senior management, middle management, supervisory and non-managerial employees.

1.4.3 Measuring instruments

In this research, the following measuring instruments were used:

- Psychological capital was measured by using the *Psychological Capital Questionnaire* (PCQ) empirically validated by Luthans et al. (2007). The PCQ is based on the selected scales for the four positive facets. According to Luthans et al. (2007), the four scales that were determined to best meet the criteria for designing PCQ are (a) hope (Snyder et al., 1996); (b) resilience (Wagnild & Young, 1993); (c) optimism (Scheier & Carver, 1985); and (d) self-efficacy (Parker, 1998). The 24-item PCQ (6 items for each subscale of hope, resilience, optimism and efficacy) has responses put into a six-point Likert-type scale with categories ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). The sample items are: “I feel confident in representing my work area in meetings with management” (efficacy);

“Right now I see myself as being pretty successful at work” (hope agency); “If I should find myself in a jam at work, I could think of many ways to get out of it” (hope pathways); “When I have a setback at work, I have trouble recovering from it, moving on” (resilience, to be reverse-scored); “I usually take stressful things at work in stride” (resilience); “I always look on the bright side of things regarding my job” (optimism). From the published literature, the subscales and the overall PCQ have been found to have demonstrated adequate internal reliability and factor analytic fit (Avey, Nimnicht, & Pigeon, 2010; Peterson et al., 2011).

- The *Performance-related Attitudinal Questionnaire* (PAQ) developed for the purpose of this study was used to measure self-rated performance. The PAQ consists of four items which measure performance (e.g. “How would you rate your performance/effectiveness as compared with your peers?”). With this scale, employees were asked to rate their performance in their current job over a given period of time, on a 1-10 rating scale, anchored by low (1) to top (10) performance. In addition to the performance-related measure, data from actual performance evaluations will also be used. The performance measure will be based on the objective data and managerial ratings of employees obtainable from the human resources departments’ records of the focus organisations. In addition to the performance-related measure, a questionnaire was developed to measure the perception of the actual overall performance of Namibian SOEs. The performance of the SOEs was considered in terms of four components namely, adaptability to change, organisational leadership, organisational success and corporate social responsibility. Data from the questionnaire was gathered independently from the performance-related attitudinal questionnaire.
- The *Job Satisfaction Scale* (JSS; Warr, Cook, & Wall, 1979) was used to measure job satisfaction. The respondents were asked to indicate how satisfied or dissatisfied they feel with each of the 15 aspects of their job (e.g. “The recognition you get for good work”). Items will be rated on a seven-point Likert type scale from very dissatisfied to very satisfied. According to Morrison (2004), the JSS has been found to be reliable and has been reported to have a test-retest reliability of 0.63. The JSS was also found to have a coefficient α of 0.83, which was found to be sufficiently homogeneous with respect to the construct measured (Morrison, 2004).

- An adapted version of the *Engagement Scale* (ES; May, Gilson, and Harter, 2004) was used to measure work engagement. For all items, a seven-point frequency scale varying from 1 (*almost never or never*) to 7 (*always or almost always*) was used. The nine items reflect the three components of Kahn's (1990) conceptualisation of work engagement, namely cognitive (three items; e.g. "I am very absorbed in my work"), emotional (three items; e.g. "I am passionate about my work"), and physical engagement (three items; e.g. "I feel alive and vital at work"). An alpha coefficient of 0.85 was found for the total scales (Rothmann, 2010).
- The *Turnover Intention Scale* (TIS; Sjöberg and Sverke, 2000) was used to measure the intention to leave. The TIS consists of three questions. One example was, "If I was completely free to choose, I would leave this job." Response options ranged from 1 (*strongly disagree*) to 5 (*strongly agree*). An alpha coefficient of 0.83 was found for the TIS.
- A standard questionnaire was used to measure *authentic leadership*. The Authentic Leadership Questionnaire (ALQ; Avolio, Gardner and Walumbwa, 2007) comprises four scales of the authentic leadership theory, i.e. self-awareness, balanced processing, self-regulation (moral/ethics) and relational transparency. The questionnaire consists of 16 items. The sample items included, "My leader says exactly what he or she means"; "My leader demonstrates beliefs that are consistent with actions"; "My leader solicits views that challenge his or her deeply held positions"; and "My leader seeks feedback to improve interactions with others." The answering format for all the questions ranged from 1 (*not at all*) to 5 (*frequently, if not always*). Zamahani et al. (2011) found the questionnaire to be reliable, with reliability ranging from $\alpha = 0.80$ to $\alpha = 0.93$ in the four scales.
- To measure the *organisational supportive climate*, a questionnaire developed by Rogg, Schmidt, Shull, and Schmidt (2001) was used. Two of the four original dimensions, managerial consideration (eight items) and cooperation/coordination (four items) will be used in this study since they are more closely related to the variables of interest (Hughes et al., 2008; Luthans et al., 2008). Hughes, Avey and Norman (2008) found the scale and its components to be reliable within acceptable levels, with alphas ranging from 0.80 to 0.90.

Sample items of the questionnaire included, “Managers consistently treat everyone with respect” and “Departments cooperate to get the job done effectively and efficiently.” The response categories of the questionnaire vary from 1 (*strongly disagree*) to 6 (*strongly agree*).

1.4.4 Research procedure

Because of the large number of state-owned enterprises in Namibia, 24 organisations from three tiers (eight from each tier) as classified by the SOEGC were targeted, of which only 20 SOEs gave a positive response. The researcher contacted SOEGC and the identified enterprises in writing to obtain permission to conduct research. An introductory letter was distributed with the questionnaire to explain the purpose of the study and to obtain consent from the respondents to make use of their data for academic research purposes. The questionnaires were completed online as well as the capturing of data (hosted at myresearchsurvey.com).

1.4.5 Statistical analysis

Latent variable modelling using Mplus Version 7.31 (Muthen & Muthen, 2008-2014) was used to test the measurement and structural models in this study. The items of all questionnaires were defined to be categorical if the scales have six scale points or less, and WLSMV was used as an estimator. To assess model fit, the comparative fit index (CFI; >0.90), Tucker-Lewis index (TLI; >0.90), and the root mean square error of approximation (RMSEA; <0.08) were reported. A multiple group model was used to explore the invariance of measurement and structural models for different groups. Reliabilities (ρ) of scales measured by items rated on a continuous scale were computed using a formula based on the sum of squares of standardised loadings and the sum of standardised variance of error terms (Wang & Wang, 2012). This was done as an alternative for Cronbach’s alpha, which does not provide a dependable estimate of scale reliability when latent variable modelling is used.

Indirect effects and moderation effects were also computed, to determine whether any relationships are indeed indirectly affected by independent variables, the procedure explained by Hayes (2009). Bootstrapping was used to construct two-sided bias-corrected 95% confidence intervals (CIs) so as to evaluate indirect effects. Lower CIs and upper CIs are reported.

Multilevel analyses were used to assess variance within and between groups. Multilevel modelling allows the researcher to consider both the individual and organisational levels of the hierarchical structured data simultaneously (Byrne, 2012; Hox, 2010). It enables the partitioning of total variance into within- and between-group components and allows a separate structural model to be specified at each level.

1.4.6 Ethical considerations

The roles and responsibilities of different parties that were involved in the study were outlined at the onset. Confidentiality was maintained at all times by the researcher. Through the covering letter of the survey, the participants were informed that all information was going to be treated and their anonymity was guaranteed. They were also informed that what was gathered was going to be used for no other purpose than the purpose of the study. The participants were also informed that their participation in the research project was voluntary and anonymous. By virtue of participating in the online survey, they have unilaterally given consent that the information obtained via the research can be used for research purposes. The participants were also informed that upon completion of the study, participants would be given feedback on the outcomes of the study in an organised manner, such as by submitting a copy of the research paper to the participating state-owned enterprises.

1.5 Division of Chapters

Chapters 2 to 4 will be presented in the form of articles, while Chapter 5 deals with conclusions, limitations and recommendations.

Chapter 2 will address authentic leadership and psychological capital in state-owned enterprises and effects on job satisfaction and intention to leave. Chapter 3 will address impacts of authentic leadership and psychological capital on work engagement within state-owned enterprises' supportive organisational climate. In Chapter 4, the effects of psychological capital on performance within the supportive organisational climate of state-owned enterprises will be considered. In Chapter 5 conclusions will be drawn, limitations outlined and recommendations made.

1.6 Chapter Summary

In this chapter, the problem statement is discussed. The general and specific research objectives are set out, the research method explained and a division of chapters outlined. Chapter 2 focuses on authentic leadership, psychological capital, and effects on job satisfaction and employees' intention to leave state-owned enterprises.

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CHAPTER 2

Manuscript 1

Authentic Leadership, Psychological Capital, Job Satisfaction and Intention to Leave in State-owned Enterprises

Abstract

This study investigated the relations among authentic leadership, psychological capital, job satisfaction and intention to leave within state-owned enterprises in Namibia. Participants were a convenience sample of 452 employees (females = 49.6%, Mean age = 37.36, $SD = 8.57$) of state-owned enterprises in Namibia. They completed the Authentic Leadership Questionnaire, Psychological Capital Questionnaire, Job Satisfaction Questionnaire and Turnover Intention Scale. Structural equation modelling was utilized to investigate the relations among authentic leadership, psychological capital, job satisfaction and intention to leave. The findings indicated that authentic leadership was positively associated with psychological capital (i.e. experiences of hope, optimism, self-efficacy and resilience) and job satisfaction. Authentic leadership affected job satisfaction indirectly via psychological capital. Psychological capital had a medium to large indirect effect on employees' intentions to leave. The findings suggest that authentic leadership and psychological capital explain job satisfaction and retention of employees in state-owned enterprises.

Keywords: Authentic leadership, psychological capital, job satisfaction, intention to leave

State-owned enterprises are government operated, are partially or fully owned by the state and are principally involved in commercial activity in a competitive market environment (MacCarthaigh, 2011). Governments play an active role in opening state-owned enterprises, especially when appropriate private enterprise capacity is lacking (Hayllar & Wettenhall, 2013). State-owned enterprises, like other organisations, are constantly challenged to achieve business results and to remain competitive. Employee satisfaction and retention is important to the success of any organisation (Truss, Mankin, & Kelliher, 2012). Human resource management interventions (e.g. recruitment, selection, training and development, and performance management) should be implemented to ensure the satisfaction and retention of employees. In the past decades, human resource management in state-owned enterprises was largely confined to personnel administration, resulting in insufficient consideration of the role talented employees play in achieving business results (Luthans, Avey, Clapp-Smith, & Li, 2008). In order to gain a competitive advantage, state-owned enterprises must better leverage human capital for a higher return. The psychological capacities of employees are important to organisational success (Luthans, Avolio, Avey, & Norman, 2007b), and so is the quality of the leadership (Alimo-Metcalfe, Alban-Metcalfe, Bradley, Mariathasan, & Samele, 2008).

Few studies have addressed psychological capacities as key success factors affecting the quality of work life and job retention of staff of state run enterprises in developing world settings (Swart & Rothmann, 2012). Three studies which investigated the reliability and validity of a measure of psychological capital in the African context produced mixed results, specifically regarding the reliability and construct validity of scales used to measure it (Du Plessis & Barkhuizen 2011; Görgens-Ekermans & Herbert 2013; Simons & Buitendach, 2013). This study sought to investigate the relations among authentic leadership, psychological capital, job satisfaction and intention to leave in Namibia, a developing country.

The Namibian State-owned Enterprise Work Setting

In Namibia, after independence in 1990, the Government of the Republic of Namibia established a number of state-owned enterprises across all sectors to provide goods and services to the inhabitants of the country in a more efficient manner (Murangi, 2010). All state-owned enterprises are 100% owned by the Government of the Republic of Namibia, with the voting shares held equally by the shareholding ministers, i.e. the Minister of Finance and the minister responsible for state-owned enterprises. Many of these enterprises have reportedly not been

performing well (Dentlinger, 2006). Legislation was promulgated in 2006 after it was found that several of these enterprises were burdened by poor performance, mismanagement and corruption (Dentlinger, 2006). While the poor performance of the state-owned enterprises has been studied in terms of financial aspects of the state-owned enterprises, less attention, if any, has been given to the role of human resources as a key success factor in contributing to the performance of the Namibian state-owned enterprises (Shipanga & Strompen, 2010). Various researchers (e.g. Awases, 2006; Naris & Ukpere, 2010; Shivangulula, 2009) have reported that human resource management practices (including retention, career development and performance management) in Namibian organisations are poorly developed. According to Naris and Ukpere (2010), people leave institutions in Namibia due to the nature of the work, poor financial rewards and a lack of career opportunities.

Psychological Capital

Psychological capital refers to an individual's positive psychological state of development characterised by the confidence a person may have in addressing the challenging tasks (self-efficacy), the positive attribution to succeed in life (optimism), determination in achieving goals in life (hope) and the ability to bounce back and beyond when facing the challenges of life in order to succeed (resilience) (Luthans, Youssef, & Avolio, 2007a). It is a common underlying capacity critical to human motivation, cognitive processing, striving for success, and resulting attitudes and behaviour in the workplace (Zhang, Li, Ma, Hu, & Jiang, 2014). Psychological capital draws its foundation and explanatory mechanisms from theories of work motivation (Stajkovic, 2006), positive psychology (Lopez & Snyder, 2009), and Bandura's social cognition (1986, 1997), and agentic (2008) theories. Based on these theories, psychological capital has been defined as a construct consisting of four positive psychological resources, namely self-efficacy, optimism, hope, and resilience.

Self-efficacy is defined as the employee's belief in his or her abilities to come up with resources or courses of action that are needed to successfully accomplish a specific task within a given situation (Bandura, 1998; Stajkovic & Luthans, 1998). *Optimism* is associated with a positive outcome, outlook on or attribution of events (Luthans, 2002). *Hope* is a positive motivational state that is based on a sense of agency and pathways (Snyder, Irving, & Anderson, 1991). The agency component can be thought of as having the will to accomplish the intended or desired effect (Luthans, Avolio et al., 2007a). The pathways component refers to the ability to identify,

clarify, and pursue the way to success (Luthans, Avolio et al., 2007a). *Resilience* is the psychological capacity to ‘bounce back’ from adversity, uncertainty, conflict, and failure (Luthans, 2002). According to Luthans, Avolio et al. (2007a), studies have shown that positive emotions enhance resilience in the face of negative events (Fredrickson & Joiner, 2002).

When the four positive resources are combined, the result is a higher-order, multidimensional construct (labelled psychological capital), which indicates internalised agency, motivation, perseverance, and success expectancies (Luthans, Avey, Avolio, & Peterson, 2010). Although the four components of psychological capital may seem to possess some level of stable qualities, recent research shows that these components can be developed through targeted interventions (Luthans, Avey, Avolio, & Peterson, 2010). While character strengths and virtues are ‘trait-like’, i.e. relatively stable and difficult to change (Peterson & Seligman, 2004), psychological capital is ‘state-like’, and thus it is relatively malleable and open to development (Rego, Marques, Leal, Sousa, & Cunha, 2010). Luthans et al. (2007a) reported that psychological capital can be measured in a reliable and valid way by using a survey instrument.

Authentic Leadership and Psychological Capital

Leadership plays an important role not only in psychological states of employees, but also in promoting their job satisfaction, and in retaining them (Alimo-Metcalfe et al., 2008). Authentic leadership is regarded as the root construct underlying positive forms of leadership and its development (Avolio & Gardner, 2005; Luthans & Avolio, 2003; Rego, Sousa, Marques, & Cunha, 2012). Authentic leadership draws from literature on positive psychological capacities and is expected to contribute to psychological capital (Luthans & Avolio, 2003).

The term *authenticity* originated from the ancient Greeks, and it means ‘be true to oneself’ (Gardner, Fischer, & Hunt, 2009). Authenticity refers to “owning one’s experiences, be they thoughts, emotions, needs, wants, preferences, or beliefs, processes captured by the injunction to ‘know oneself’ and “implies that one acts in accord with the true self, expressing oneself in ways that are consistent with inner thoughts and feelings”(Harter, 2002, p. 382). It is not the behavioural style which differentiates authentic from non-authentic leaders: authentic leaders can be directive, participative or even authoritarian. Authentic leaders act in accordance with personal values and convictions to build credibility and earn the trust and respect of employees (Avolio & Gardner, 2005).

Authentic leaders become deeply aware of how they think and behave, of the context in which they operate, and are perceived by others as being aware of their own and others' values/moral perspectives, knowledge and strengths (Clapp-Smith, Vogelgesang, & Avey, 2009). Authentic leadership positively influences self-awareness and self-regulated behaviours on the part of both leaders and followers, and stimulates personal growth and self-development (Illies, Mogeson, & Nahrgang, 2005). An authentic leader has achieved a high level of self-concept clarity, has self-concordant goals, and is self-expressive (Illies et al., 2005).

Authentic leadership has four components, namely self-awareness, an internalised moral perspective, balanced processing and relational transparency (Illies et al., 2005; Zamahani, Ghorbani, & Rezaei, 2011). Self-awareness refers to the extent to which a person is conscious of his/her personal characteristics and the impact thereof on others. Balanced processing refers to the degree to which leaders show that they objectively analyse data before coming to a solution. Authentic leaders do not distort, exaggerate or ignore information that has been collected, but rather pay attention to both positive and negative interpretations about themselves and their leadership style. Internalised moral perspective entails that authentic leaders align their values with their intentions and actions. The leaders' motives, goals and values are completely transparent to followers through leading by example and demonstrating consistency between espoused theories and theories-in-use (Avolio & Gardner, 2005). Relational transparency encompasses all of the earlier capabilities in the act of open sharing of information and self-disclosure. Authentic leaders are transparent in revealing these expressions to their followers (Mazutis & Slawinski, 2008). These four factors were found to be part of a higher-order factor, namely authentic leadership (Rego et al., 2012).

Authentic leadership might influence psychological capital in the following ways (Luthans et al., 2007): a) By emphasising growth of employees and through observing exemplary behaviour and strengths in leaders, and receiving constructive feedback from them, employees develop more self-efficacy. b) Through authentic leaders' orientations towards follower development which encourage hope, followers perceive pathways toward personal growth and career advancement. Leaders' motivation for self-regulation promotes follower involvement, which gives followers a sense of inclusion. c) Through identification with leaders and by encouraging positive emotions, authentic leaders foster employees' optimism. d) In times of uncertainty, the behaviours of authentic leaders encourage a sense of ownership in the

organisation, which develops followers' resilience. Authentic leaders strengthen the resilience of employees by promoting good interpersonal relationships (which is necessary to receive social support during stressful times), increasing the self-confidence of employees and by promoting employees' positive emotions.

Woolley, Caza, and Levy (2011) argue that authentic leaders foster a positive organisational climate which is moral, communicative and supportive. This positive organisational climate affects the hope, optimism, self-efficacy and resilience of employees. Luthans and Avolio (2003) argue that authentic leadership behaviour should cascade from the top of the organisation down to the lowest level employee and that this cascading process is rooted and reinforced by the culture of the organisation. Avolio, Zhu, Koh, and Bhatia (2004) stress the importance of personal and social identification of followers with leaders as a pathway for affecting followers' psychological states.

Job Satisfaction and Staff Retention

Job satisfaction indicates the degree to which an employee has a positive attitude and emotional state regarding the appraisal of his or her current job situation (Landy & Conte, 2010). Job satisfaction has been linked to customer satisfaction, productivity, profit, commitment, identification with an organisation, and employees' intention to leave (Harter, Schmidt, & Hayes, 2002; Russell et al., 2004). Tett and Meyer (1993) defined intention to leave as the wilful and deliberate intent of an employee to resign from an organisation. Intention to leave is "the last step prior to actual quitting" (Mobley, 1977). A high turnover rate of staff might erode the knowledge base of state-owned enterprises (Coff, 1997). When organisations lose their productive employees, organisational performance will be negatively affected (Leopold, Ellis, & Valle, 2013).

Psychological capital is regarded as one of the mechanisms through which authentic leaders affect outcomes such as job satisfaction and intention to leave (Woolley et al., 2011). Zamahani et al. (2011) pointed out that there is growing evidence that psychological capital is significantly related to desired employee attitudes (e.g. job satisfaction) and behaviours (and negatively to undesired behaviours).

Studies showed correlations varying from 0.32 to 0.53 between psychological capital and job satisfaction (Larson & Luthans, 2006; Luthans, Norman, Avolio, & Avey, 2008). Hope predicts

job satisfaction because through their jobs employees were more enabled to have both the motivation and a plan to make the best of their situation (Larson & Luthans, 2006; Luthans, et al., 2007a; Luthans al., 2007b). Hope associated with optimism and self-efficacy might even have stronger effects on job satisfaction (Youssef & Luthans, 2007). Peterson and Luthans (2003) found that fast-food store managers' level of hope correlated with job satisfaction, retention and the financial performance of their unit.

Employees that self-reported with high psychological capital have lower intentions to leave their jobs and organisations (Barkhuizen, Rothmann, & Van de Vijver, 2014), and persevere despite obstacles (Peterson, 2000). They are resilient and likely to bounce back from negative events in the workplace, which might reduce intentions to leave (Avey, Luthans, & Youssef, 2010). Furthermore, individuals who experience high levels of hope are more inclined to find pathways to success in their current jobs (Avey et al., 2010). Moreover, because employees measuring high on psychological capital are also more satisfied with their jobs; they are less inclined to quit their jobs.

Aim and Hypotheses

The aim of this study was to investigate the relations among authentic leadership, psychological capital, job satisfaction and intention to leave in Namibian state-owned enterprises. The study was guided by the following question: What are the relations between authentic leadership, psychological capital, job satisfaction and retention of staff in Namibian state-owned enterprises?

The following hypotheses were tested:

Hypothesis 1: Authentic leadership relates positively to psychological capital.

Hypothesis 2: Authentic leadership relates positively to job satisfaction.

Hypothesis 3: Psychological capital relates positively to job satisfaction.

Hypothesis 4: Job satisfaction relates negatively to intention to leave.

Hypothesis 5: Authentic leadership indirectly affects job satisfaction through psychological capital.

Hypothesis 6: Psychological capital indirectly and negatively affects intention to leave through job dissatisfaction.

Hypothesis 7: Authentic leadership indirectly and negatively affects intention to leave through low psychological capital.

Hypothesis 8: Authentic leadership indirectly and negatively affects intention to leave through job satisfaction.

Method

Participants and Setting

A convenience sample of 452 (females =49.60%) participated in the study. (See Table 1 for a description of the participants.) They were recruited from 20 state-owned enterprises, and the number of participants varied from six to 123 per company. The companies included regulatory, service-rendering, economic and productive, and general enterprises.

Males comprised 50.4% of the sample and females 49.6%. The ages of the participants varied from 18 to 63 (Mean = 37.41; *SD* = 8.60). The length of service in the various companies varied between less than one year and 30 years. With regard to education, 83.4% of the participants had tertiary qualifications. The distribution of participants' job level was non-managerial (55.8%), middle management (33%), senior management (6.2%) and executive management (5%). With regard to remuneration, 63% of the participants earned a monthly salary between the remuneration bracket of N\$10 000 [US\$830] and N\$39 999 (US\$=3238). Table 1 shows the characteristics of the participants (*N* = 452).

Table 1

Characteristics of Participants (N=452)

Item	Category	Frequency	Percentage
Gender	Male	228	50.4
	Female	224	49.6
Age	Below 23	4	0.9
	23 – 30	105	23.2
	31 – 39	164	36.3
	40 – 45	90	19.9
	46 –55	79	17.5
	Over 55	10	2.2
Education	Grade 12	75	16.6
	Diploma	130	28.8
	Degree	146	32.3
	Postgraduate degree	101	22.3
Years of Experience	Less than 3	18	4.0
	3 – 8	139	30.7
	9 – 14	102	22.6
	15 – 20	89	19.7
	21 – 26	62	13.7
	Over 27	42	9.3
Job Level	Executive Management	23	5.0
	Senior Management	28	6.2
	Middle Management	149	33.0
	Non-managerial	252	55.8
Years in Job	Less than 1	11	2.4
	1 – 2	122	27.0
	3 – 5	133	29.4
	6 – 10	114	25.2
	More than 10	72	16.0
Salary Range p.m.	Less than N\$10 000	46	10.2
	10 000 – 19 999	163	36.1
	20 000 – 39 999	122	27.0
	40 000 – 59 999	54	11.9
	60 000 – 79 999	25	5.5
	80 000 – 99 999	11	2.4
	Over 100 000	31	6.9

Measuring Instruments

The *Authentic Leadership Questionnaire* (ALQ; Avolio & Gardner, 2005) was used to measure authentic leadership. The questionnaire comprises 16 items, which measure four scales of the authentic leadership, i.e. self-awareness (e.g. “My leader seeks feedback to improve interactions with others”), balanced processing (e.g. “My leader solicits views that challenge his or her deeply held positions”), self-regulation (e.g. “My leader demonstrates beliefs that are

consistent with actions”) and relational transparency (e.g. “My leader says exactly what he or she means”). Response options ranged from 1 (*not at all*) to 5 (*frequently, if not always*). Zamahani et al. (2011) found reliabilities ranging from 0.80 to 0.93 for the four scales. The composite reliabilities (ρ) of the four subscales of the ALQ in the present sample were: 0.86 (Relational transparency), 0.85 (Self-regulation), 0.86 (Balanced processing), 0.92 (Self-awareness).

The *Psychological Capital Questionnaire* (PCQ; Luthans, Avolio et al., 2007) was used to measure psychological capital. The 24-item PCQ measures four dimensions, namely hope (e.g. “If I should find myself in a jam at work, I could think of many ways to get out of it”), resilience (e.g. “When I have a setback at work, I have trouble recovering from it, moving on”), optimism (e.g.; “I always look on the bright side of things regarding my job”), and efficacy (e.g. “I feel confident in representing my work area in meetings with management”). The PCQ has responses put into a six-point Likert-type scale with response options ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). The subscales and the overall PCQ have been found to have demonstrated adequate internal reliability and construct validity (Avey, Nimnicht, & Pigeon, 2010; Peterson et al., 2011). The composite reliabilities (ρ) of the four subscales of the ALQ in the present sample were: 0.84 (Self-efficacy), 0.81 (Hope), 0.63 (Resilience), 0.65 (Optimism).

The *Job Satisfaction Questionnaire* (JSQ; Saks, 2006; Cammann, Fichman, Jenkins, and Klesh, 1983) was used to measure job satisfaction. The respondents were asked to indicate whether they totally disagree or agree with each of the five aspects of their job (e.g. “I feel fairly satisfied with my present job.”). Items were rated on a five-point Likert-type scale varying from 1 (*totally disagree*) to 5 (*totally agree*). Diedericks and Rothmann (2013) reported an alpha coefficient of 0.84 for the JSQ. A composite reliability score of 0.79 was observed in the present study.

The *Turnover Intention Scale* (TIS; Sjöberg & Sverke, 2000) was used to measure the intention to leave. The TIS consisted of three items, and an example of an item is “If I were completely free to choose, I would leave this job”. Response options ranged from 1 (*strongly disagree*) to 5 (*strongly agree*). Rothmann, Diedericks, and Swart (2013) reported an alpha coefficient of

0.83 for the TIS. Scores from the TIS achieved a composite reliability of 0.89 in the present sample.

Data Analysis

Mplus 7.3 (Muthén & Muthén, 1998-2014) was used to test measurement and structural models authentic leadership, psychological capital, job satisfaction and intention to leave. Items of all questionnaires were treated as categorical and the weighted least-squares with the mean and variance adjustment (WLSMV) estimator was used to test the measurement and structural models. This estimator is robust; it does not assume normally distributed variables and it provides the best option for modelling categorical data (Brown, 2006).

The following Mplus fit indices were used in this study: a) Absolute fit indices, which included the Chi-square statistic (the test of absolute fit of the model), the weighted root mean square residual (WRMR), and the Root-Mean-Square Error of Approximation (RMSEA); b) Incremental fit indices, which included the Tucker-Lewis Index (TLI), c) The Comparative Fit Index (CFI) (Hair, Black, Babin, & Anderson, 2010). TLI and CFI values higher than 0.95 are regarded as acceptable (Hu & Bentler, 1999). RMSEA values lower than 0.06 and a WRMR lower than 1 indicate a close fit between the model and the data. Two fit statistics, namely the Akaike Information Criterion (AIC) and Bayes Information Criterion (BIC), were used in addition to other fit indices to compare alternative measurement models. The AIC, which is a comparative measure of fit, is meaningful when one estimates different models. The lowest AIC is the best fitting model. The BIC provides an indication of model parsimony (Kline, 2010). Chi-square difference tests were conducted to compare alternative nested structural models (Muthén & Muthén, 1998-2014). Composite reliability (Raykov, 2009) was computed for each scale. Composite reliability (ρ) is superior to Cronbach alpha coefficients when latent variable modelling is used.

Research Procedure

Ethical approval (Ethics Approval number: SH-SB-2012-0074) for this study was obtained from the Ethics Committee of the North-West University (Vaal Triangle Campus), South Africa, in February 2013. In addition to the approval from the Ethics Committee, permission

was obtained from the State-Owned Enterprises Governance Council – Secretariat, Office of the Prime Minister, Government of the Republic of Namibia, to conduct research within state-owned enterprises of Namibia. Permission was also obtained from the chief executive officers of the state-owned enterprises to administer the questionnaire in their organisations. Participation in the survey was anonymous and voluntary. The survey questionnaire was designed such that, by participating, respondents gave consent that the researcher could use the information obtained from the survey for research purposes only. The survey questionnaire was administered online. A covering letter accompanied the questionnaire. It explained the purpose and emphasised confidentiality of the research project. A questionnaire (hosted at myresearchsurvey.com) was used to gather data online between February and July 2013. The online survey captured the raw data. The completed raw data was then converted to an SPSS dataset for use in Mplus 7.3.

Results

First, the results of tests of competing measurement models which modelled the relations among authentic leadership, psychological capital, job satisfaction and intention to leave are reported. Second, the results of alternative structural models are analysed.

Testing Measurement Models

Using confirmatory factor analysis (CFA), a five-factor measurement model as well as four alternative models were tested to assess whether each of the measurement items would load significantly onto the scales they were associated with.

Model 1 consisted of four latent variables: a) authentic leadership, which consisted of four first-order latent variables: relational transparency (measured by five items), self-regulation (moral/ethics) (measured by four items), balanced processing (measured by three items) and self-awareness (also measured by four items); b) psychological capital, which consisted of four first-order latent variables: self-efficacy (measured by six items), hope (measured by six items), resilience (measured by six items) and optimism (measured six by items); c) job satisfaction (measured by five items); d) intention to leave (measured by three items). All the latent variables in model 1 were allowed to correlate.

Models 2, 3, 4 and 5 followed the same template: model 2 was specified with 24 observed variables measuring psychological capital (without the four first-order latent variables, namely self-efficacy, resilience, hope and optimism); model 3 was specified with 24 observed variables measuring psychological capital (without the four first-order latent variables, namely self-efficacy, resilience, hope and optimism) and 16 observed variables measuring authentic leadership (without the four first-order latent variables, relational transparency, self-regulation, balanced processing and self-awareness); model 4 was specified with 16 observed variables measuring authentic leadership (without the four first-order latent variables, relational transparency, self-regulation, balanced processing and self-awareness); model 5 was specified with 48 observed variables measuring one latent factor. Table 2 presents fit statistics for the test of the various models.

The results in Table 2 showed a χ^2 value of 2278.51 ($df = 1066$; $p < 0.001$) for the hypothesised measurement model, suggesting that the model did not fit the data well. Given that it is unlikely to obtain a non-significant χ^2 test statistic, because of problems associated with null hypothesis testing and the effects of sample size (Kelloway, 2014), other fit indices provided by Mplus were also considered.

The CFI = 0.96, TLI = 0.96, RMSEA = 0.05, 90% CI [0.047, 0.053], PCLOSE = $p > 0.01$, and WRMR = 1.48. The CFI and TLI values were higher than 0.95, and the RMSEA (and its upper confidence interval) were lower than 0.06 ($p > 0.01$), which indicate a moderate fit of the model to the data (Hu & Bentler, 1999).

Table 2
Fit Statistics of Competing Measurement Models

Model	χ^2	df	TLI	CFI	RMSEA	WRMR	AIC	BIC
1	2278.51	1066	0.96	0.96	0.05 [0.047, 0.053]	1.48	49834.81	51097.72
2	2798.00	1070	0.94	0.94	0.06* [0.057, 0.062]	1.71	50336.04	51500.22
3	2958.04	1074	0.93	0.93	0.06* [0.060, 0.065]	1.78	50584.52	51686.99
4	2442.39	1070	0.95	0.95	0.05* [0.050, 0.056]	1.55	50158.24	51322.41
5	9886.88	1080	0.68	0.69	0.23* [0.132, 0.137]	3.96	54422.77	55500.55
1a	2101.23	989	0.96	0.96	0.05 [0.047, 0.053]	1.35	48377.14	49615.36

* $p < 0.05$

χ^2 , chi-square statistic; df , degrees of freedom; TLI, Tucker-Lewis Index; CFI, Comparative Fit Index; RMSEA, root mean square error of approximation; WRMR, weighted root mean square residual; AIC, Akaike Information Criterion; BIC, Bayes Information Criterion,

The analysis continued in an exploratory mode to improve the fit of the selected model. One item measuring optimism, Item C20 (“If something can go wrong for me work-wise, it will”) was removed because of its high residual variance (Estimate = 0.10, SE = 0.01, Estimate/SE = 164.53 and $p = 0.00$) and low R^2 value (Estimate = 0.00, SE = 0.01, Estimate/SE = 0.52 and $p = 0.60$). The fit statistics for the revised model (Model 1a) showed that the model fit improved significantly: $\chi^2 = 2101.23$, $df = 989$; TLI = 0.96, CFI = 0.96, RMSEA = 90% CIs [0.047, 0.053] and WRMR = 1.35. The AIC and BIC values for model 1a were lower than those for model 1. The standardised regression coefficients were all statistically significant and varied from 0.30 to 0.91.

Testing the Structural Model of Job Satisfaction and Intention to Leave

Table 3 shows the reliabilities and correlations of authentic leadership, psychological capital, job satisfaction and intention to leave.

Table 3

Reliability Coefficients and Correlations of the Scales (N = 452)

Variable	ρ	1	2	3	4	5	6	7	8	9
1. Self-efficacy	0.84	-	-	-	-	-	-	-	-	-
2. Hope	0.81	0.74**	-	-	-	-	-	-	-	-
3. Resilience	0.63	-0.50**	0.59**	-	-	-	-	-	-	-
4. Optimism	0.65	0.72**	0.84**	-0.57**	-	-	-	-	-	-
5. Relational transparency	0.86	0.23**	0.27**	-0.19	0.27**	-	-	-	-	-
6. Self-regulation	0.85	0.25**	0.29**	-0.20*	0.28**	0.83**	-	-	-	-
7. Balanced processing	0.86	0.26**	0.30**	-0.20*	0.29**	0.87**	0.91**	-	-	-
8. Self-awareness	0.92	0.25**	0.29**	-0.20*	0.28**	0.84**	0.88**	0.92**	-	-
9. Job satisfaction	0.79	0.55**	0.64**	-0.44**	0.62**	0.37**	0.40**	0.41**	0.39**	-
10. Intention to leave	0.89	-0.31**	-0.36**	0.25*	-0.35**	-0.28**	-0.29**	-0.31**	-0.29**	-0.72**

* $p < 0.05$; ** $p < 0.01$

Table 3 shows scale reliabilities ranging from 0.63 to 0.92, which indicate acceptable internal consistency of all the scales except Resilience and Optimism (Raykov, 2009). The results of these two scales should be interpreted with caution.

The structural model was tested based on the measurement model. The hypothesised relationships were tested using latent variable modelling as implemented by Mplus. In this regard, three competing models were tested. Model 1 included paths from authentic leadership to psychological capital, from psychological capital to job satisfaction and from job satisfaction to intention to leave. This model yielded the following fit statistics: $\chi^2 = 2152.40$; $df = 1020$, $p < 0.001$; CFI = 0.96; TLI = 0.96; RMSEA = 0.05 (90% CI [0.047, 0.052], $p > 0.59$); WRMR = 1.44. These statistics show a good fit for the hypothesised model.

Given the cross-sectional nature of the data, two other models were tested. Model 2 (the indirect effects model) had an indirect path from authentic leadership to job satisfaction via psychological capital (i.e. the path from authentic leadership to job satisfaction was constrained to zero). Model 3 (the direct effects model) included direct paths from authentic leadership and psychological capital to job satisfaction and intention to leave. The path from authentic leadership to intention to leave was constrained to zero. The following changes in chi-square ($\Delta\chi^2$) were found: Models 1 and 2 ($\Delta\chi^2 = 71.43$, $\Delta df = 2$, $p < 0.01$), and models 1 and 3 ($\Delta\chi^2 = 44.26$, $\Delta df = 3$, $p < 0.01$). These results show that model 1 was the best-fitting model. Figure 1 and Table 4 show the standardised path coefficients estimated by Mplus for the hypothesised model. Only statistically significant paths are shown in the figure; correlations were allowed among authentic leadership, psychological capital, job satisfaction and intention to leave.

Table 4

Fit Indices and Standardised Path Coefficients of the Structural Models

Measures		Direct and indirect effects (Model 1)	Direct effects (Model 2)	Indirect effects (Model 3)
Fit Indices	χ^2	2152.40*	2840.70*	2331.25*
	df	1020	1022	1023
	$\Delta\chi^2$	-	71.43*	44.26*
	Δdf	-	2	3
	TLI	0.96	0.94	0.95
	CFI	0.96	0.93	0.95
	RMSEA	0.05 ($p > 0.59$)	0.06 ($p < 0.01$)	0.05 ($p < 0.01$)
	RMSEA 90% CI	[0.047, 0.052]	[0.060, 0.065]	[0.050, 0.056]
	WRMR	1.44	2.205	1.58
Direct effects on psychological capital	Authentic leadership	0.33*	-	0.40*
Direct effects on job satisfaction	Authentic leadership	0.21*	0.45*	-
	Psychological capital	0.62*	0.74*	0.73*
Direct effects on intention to leave	Authentic leadership	-0.03	-0.35*	-
	Psychological capital	0.20*	-0.48*	-
	Job satisfaction	-0.85*	-	-0.67

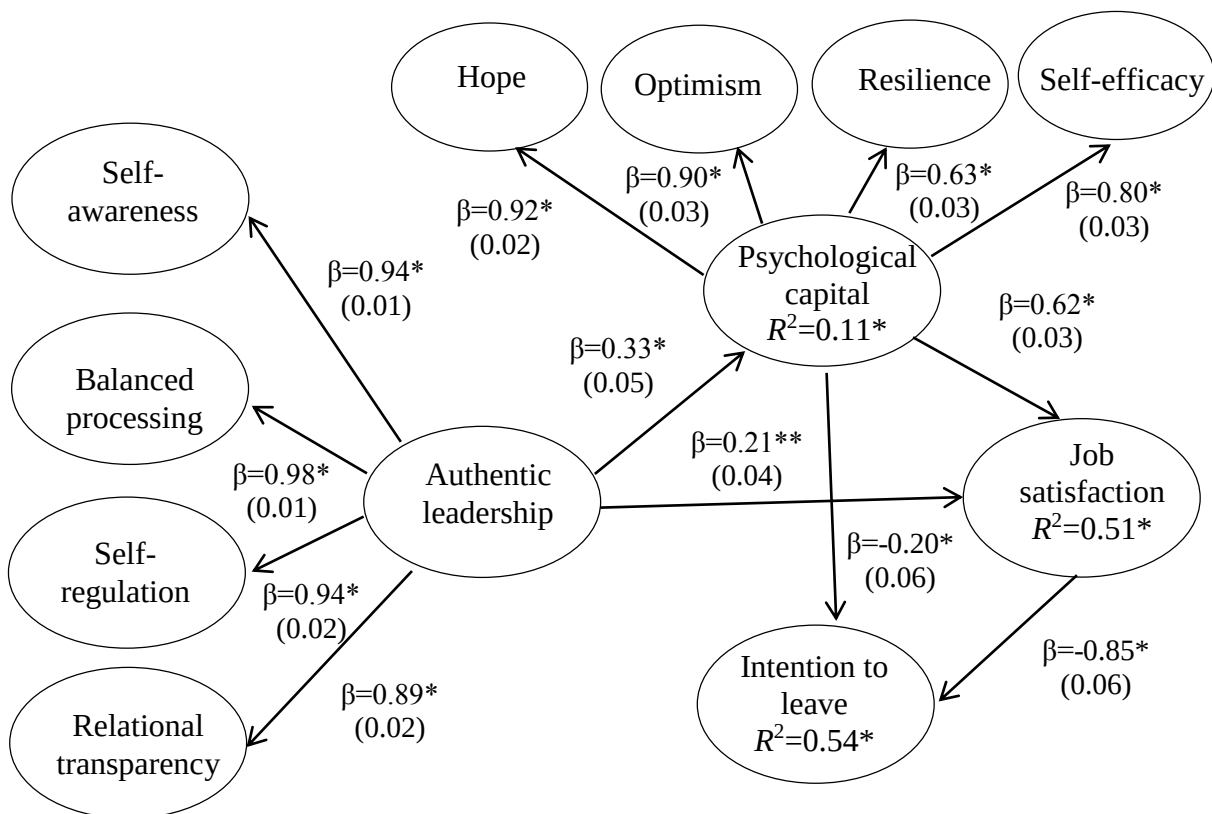
* $p < 0.01$

df = degrees of freedom; TLI= Tucker-Lewis Index; CFI= Comparative Fit Index; RMSEA= Root Mean Square Error of Approximation; WRMR= Weighted Root Mean Square Residual

Next, the obtained relations of the best fitting and most parsimonious structural model (Model 1) are discussed with reference to the hypotheses of this study. For the portion of the model predicting psychological capital, Table 4 shows that the path coefficient of authentic leadership ($\beta = 0.33, p < 0.01$) was statistically significant and had the expected sign.

Direct effects of Authentic Leadership and Psychological Capital

Authentic leadership had a positive relation with psychological capital. Authentic leadership accounted for a moderate proportion of the variance in psychological capital ($R^2 = 0.11$). Hypothesis 1 is accepted. For the portion of the model predicting job satisfaction, the path coefficients of authentic leadership ($\beta = 0.21$, $p > 0.01$) and psychological capital ($\beta = 0.62$, $p > 0.01$) were statistically significant and had the expected signs. Authentic leadership and psychological capital accounted for a large proportion of the variance in job satisfaction ($R^2 = 0.51$). Hypotheses 2 and 3 are accepted. For the portion of the model predicting intention to leave, the path coefficient of job satisfaction ($\beta = -0.85$, $p < 0.01$) was statistically significant and had the expected sign. Job satisfaction had a negative relation with intention to leave. The independent variable accounted for a large proportion of the variance in intention to leave ($R^2 = 0.54$). Hypothesis 4 is accepted.



* $p < 0.001$

Figure 1. The structural model (standardised solution with standard errors in parentheses)

Indirect Effects of Authentic Leadership and Psychological Capital

To determine whether any relations in the model were indirectly affected by psychological capital, the procedure explained by Hayes (2013) was used. Bootstrapping (with 10 000 samples) was used to construct two-sided bias-corrected 95% confidence intervals (CIs) so as to evaluate indirect effects. Lower and upper CIs are reported (see Table 5).

Table 5

Indirect Effects of Authentic Leadership and Psychological Capital

Variable	Estimate	SE	95% BC CI
Authentic leadership			
Job satisfaction	0.25	0.04	[0.17, 0.33]
Intention to leave (via job dissatisfaction)	-0.14	0.04	[-0.21, -0.06]
Intention to leave (via psychological capital)	0.05	0.03	[-0.02, 0.12]
Psychological capital			
Intention to leave	-0.48	0.08	[-0.63, -0.33]

SE: standard error, BC CI: bias-corrected confidence interval

Table 5 shows that authentic leadership had a significant effect on job satisfaction via psychological capital: $\beta = 0.25$, $p < 0.01$, 95% BC CI [0.17, 0.33]. Hypothesis 5 is accepted. Psychological capital had a significant indirect effect on intention to leave via job satisfaction: $\beta = -0.48$, $p < 0.01$, 95% BC CI [-0.63, -0.33]. Hypothesis 6 is accepted. Table 5 shows that authentic leadership did not affect intention to leave indirectly via psychological capital: $\beta = 0.05$, $p > 0.01$, 95% BC CI [-0.02, 0.12]. Hypothesis 7 is rejected. Authentic leadership affected intention to leave indirectly via job satisfaction: $\beta = -0.14$, $p < 0.01$, 95% BC CI [-0.21, -0.06]. Hypothesis 8 is accepted.

Discussion

The aim of this study was to investigate the relations among authentic leadership, psychological capital, job satisfaction and intention to leave in state-owned enterprises in Namibia. The results showed that authentic leadership was positively associated with psychological capital

and job satisfaction, and negatively associated with intention to leave. The structural model confirmed that authentic leadership impacted psychological capital and job satisfaction directly and positively, although the effect sizes were medium to small. Psychological capital had a large direct effect on job satisfaction, which, in turn, affected intention to leave directly and negatively. The effect of job dissatisfaction on intention to leave was amplified by low psychological capital (i.e. low hope, optimism, self-efficacy and resilience). Authentic leadership was indirectly associated with job satisfaction via psychological capital. Low authentic leadership affected intention to leave indirectly via job dissatisfaction.

Authentic leadership was positively associated with psychological capital in this study. The more employees feel that their managers and supervisors display the qualities and characteristics of authentic leadership, the more they were hopeful, optimistic, confident and resilient. Leaders who show an awareness of their personal characteristics and the impact thereof on others pay attention to both positive and negative interpretations about themselves and their leadership style, align their values with their intentions and actions and show relational transparency, contribute to the development of hope, self-efficacy, optimism and resilience of employees (Zamahani et al., 2011). Authentic leaders encourage psychological capital in followers because they perceive their willpower (agency) and pathways toward personal growth and career advancement, encourage positive expectations about the future, serve as models for exemplary behaviour and provide constructive feedback, and promote authentic interpersonal relationships (which is necessary to get social support during stressful times).

The results also confirmed a strong association between psychological capital and job satisfaction (Zamahani et al., 2011). Why are employees with higher levels (compared to lower levels) of psychological capital more satisfied with their jobs? First, having hope implies that they have sufficient willpower and pathways to make the best of their work situations. Avey et al. (2010) point out that efficacy and hope possess components of internalised motivation and energy, or the positive expectation of success when a person believes in his/her success. Employees with high levels in efficacy and hope, tend to set more challenging goals for themselves and opt to do challenging assignments with a drive towards success. Hopeful employees, because of the ability to create alternative pathways towards alternative goals, develop back-up plans to accomplish their goals and are unlikely to run out of options in sustaining hope towards eventual success (Avey et al., 2010). Second, employees in state-

owned enterprises have positive future expectations about their jobs and organisation when they are more optimistic. They attribute the outcomes of positive events to internal, stable efforts, or causes, and attribute outcomes of negative events to unstable, external events which they are unable to avoid (Seligman 1998). Third, resilient employees tend to utilise more adaptation processes when faced with setback. Fourth, self-efficacious employees feel competent at work, and recover from setbacks, which contribute to their job satisfaction (Rothmann 2001).

When managers are displaying authentic leadership to their employees, this instils a high level of psychological capital among them, and eventually contributes to employees being satisfied with their jobs. Authentic leadership was directly and indirectly associated with job satisfaction. Previous studies confirmed the association between authentic leadership and employees' job satisfaction (Avey, Wernsing, & Luthans, 2008; Luthans, Avolio et al., 2007b; Luthans et al., 2008, Youssef & Luthans, 2007).

The results also confirm the findings of previous studies that job dissatisfaction is related to intention to leave (Diedericks & Rothmann, 2014; Tett & Meyer, 1993). As hypothesised, psychological capital impacted intention to leave indirectly via job satisfaction. Employees with higher scores on psychological capital (compared to those with lower scores) were less inclined to consider leaving their organisations because they were more satisfied with their jobs. The higher the score on psychological capital, the more satisfied the employees are with their jobs and the lesser they are inclined to leave their organisations. The study, however, did not confirm an indirect effect of authentic leadership via psychological capital on intention to leave. Rather, low authentic leadership impacted intention to leave via job dissatisfaction.

Implications for Human Resource Management Practice

Authentic leadership and psychological capital play an important role in job satisfaction and intention to leave of employees in state-owned enterprises. Therefore these organisations should conduct surveys to assess authentic leadership, psychological capital, job satisfaction and intention to leave among employees. The outcomes of these surveys should be integrated in the leadership development programmes and in other cultural change programmes in order to enhance positive outcomes such as job satisfaction and low intention to leave. Psychological capital should be integrated in different human resource programmes, such as recruitment and

selection, training and development and wellness programmes in order for the organisations to manage and retain talent. Given that psychological capital can be developed, training and development interventions which utilise cognitive-behavioural approaches should be implemented to promote hope, learned optimism, resilience and self-efficacy (Avey, Luthans and Jensen, 2009).

To retain talented employees, state-owned enterprises have to consider authentic leadership and psychological capital as pathways to experiences of quality of life (indicated by job satisfaction) and retention of talented staff. Being authentic implies that leaders build credibility and earn the trust and respect of employees by acting in accordance with personal values (Avolio et al., 2004). Leaders that are aware of their personal characteristics and the impact thereof on others pay attention to both positive and negative interpretations about themselves and their leadership style, are consistent and transparent, and contribute to hope, optimism, self-efficacy and resilience of their subordinates (Zamahani et al., 2011). Low psychological capital affects the job dissatisfaction of employees of state-owned enterprises, which will affect their intentions to leave their organisations. Given that job dissatisfaction predicts intention to leave, developing psychological capital may be an effective way of indirectly reducing turnover.

Limitations of the Study

The study has several limitations. First, all the questionnaires used in the study were self-report measures. As a result, there was a possibility of common method variance (Richardson, Simmering, & Sturman, 2009). However, Doty and Glick (1998), and Johnson, Rosen, and Djurdjevic (2011) stated that common method variance is rarely strong enough to invalidate findings. In future studies, multi-source data such as in-depth interviews and objective ratings should be considered. The second limitation of this study is common method bias. This refers to the inflated relations when research participants are responding to questionnaire instruments that had been validated in previous research (Avey et al., 2009). This limitation generates a concern of artificially increased relations. Third, the design of the study does not allow for interpretations of causality of relations between the variables.

Conclusion

The results of this study support the important role of authentic leadership and psychological capital in explaining employee outcomes such as job satisfaction and intention to leave. Although this study confirmed that authentic leadership affects psychological capital, the effect was moderate. More research is needed to identify other antecedents of psychological capital. A need exists to conduct more research regarding authentic leadership and psychological capital to facilitate a better understanding of these constructs within African contexts.

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CHAPTER 3

MANUSCRIPT 2

Authentic Leadership, Psychological Capital, Organisational Climate and Work Engagement

ABSTRACT

The aim of the study was to investigate the relations between authentic leadership, psychological capital, organisational climate, and work engagement in state-owned enterprises. A cross-sectional survey was used in a multilevel design with a convenience sample of 452 employees in 20 state-owned enterprises. The Authentic Leadership Questionnaire, Psychological Capital Questionnaire, Supportive Organisational Climate Questionnaires and the Work Engagement Scale were administered. The results showed that authentic leadership and psychological capital predicted work engagement of employees. Climate on the organisational level was related to work engagement on an individual level, but only if authentic leadership and psychological capital were not included in the model. Psychological capital mediated the relation between authentic leadership and work engagement on an individual level.

Keywords: Authentic leadership, psychological capital, supportive organisational climate, work engagement

Organisations face a challenge of optimising human potential and obtaining a return on investment (Cardy, 2004; Luthans, Avey, Clapp-Smith, & Li, 2008). Organisations could obtain these outcomes by identifying and developing positive psychological capacities of individuals and engaging them at work (Arrowsmith & Parker, 2013; Gruman & Saks, 2011; Rothmann, 2013). Studies indeed showed that work engagement remains one of the top priorities for organisations (Clinton & Woollard, 2012). Work engagement affects work performance, customer satisfaction, productivity, low absenteeism, and low turnover, and indirectly contributes to the bottom line of organisations (Emmott, 2009; Gaul, 2013).

Positive workplace conditions and relationships between leaders and followers have been found to be associated with high levels of work engagement (Jenkins & Delbridge, 2013). Research showed that work engagement could be affected by the relationship between workers and leaders (Hassan & Ahmed, 2011; Schaufeli & Salanova, 2007), and the climate of organisations (Saks, 2006). Moreover, Siu, Bakker, and Jiang (2013) found that positive psychological capacities could affect work engagement. Luthans, Luthans and Luthans (2004) developed the psychological capital model that focuses on the effects of psychological capacities (including optimism, self-efficacy, hope and resilience) on employee and organisational outcomes. Various studies (e.g., Rego, Sousa, Marques, & Cunha, 2012; Zamahani, Ghorbani, & Rezaei, 2011) showed that leadership and organisational factors can influence psychological capital. Bakker and Demerouti (2008) found that developing such psychological capacities contribute to work engagement.

While studies have been focussing on the antecedents of psychological capital (Avey, 2014; Luthans, Norman, Avolio, & Avey, 2008), various research gaps exist. First, the association between psychological capital and work engagement is not clear. Second, while it has been shown that leadership contributes to psychological capital and work engagement, the indirect effects of leadership on work engagement via psychological capital have not been studied. Third, few studies have focused on organisational level antecedents of work engagement. Saks (2006) included an individual perspective on engagement but argued that organisational arrangements may have a stronger effect on employees' tendency to engage. Fourth, studies regarding the antecedents of both psychological capital and work engagement have focussed on the individual level rather than on the organisational level. Indeed Luthans (2012) acknowledged that studies regarding psychological capital did not focus on both the individual and organisational levels. It is important to investigate whether authentic leadership,

psychological capital and organisational climate are valuable resources among employees of state-owned enterprises. These resources could enhance the engagement of employees and eventually increase their well-being and performance. This current study aimed at addressing the gaps mentioned above in the literature.

Work Engagement

Variations are evident in the terms used to refer to the engagement concept, e.g. “work engagement” and “employee engagement” (Truss, Delbridge, Alfes, Shantz, & Soane, 2014). The term *work engagement* refers to individuals’ relationship with their jobs. *Employee engagement* refers to the individuals’ relationship with their jobs as well as with their organisations (Schaufeli, 2014). For purposes of this study, the term work engagement is used.

Work engagement is defined as the “harnessing of organizational members’ selves to their work role by which they employ and express themselves physically, cognitively and emotionally during role performance” (Kahn, 1990, p. 694). Kahn (1990) argues that people can use varying degrees of their selves physically, cognitively, and emotionally in the work they perform. When employees draw on their selves to perform their roles, they perform better. Furthermore, engagement is the simultaneous employment and expression of a person’s preferred self in task behaviours that promote connections to work and others (Kahn & Heaphy, 2014). It comprises three dimensions, namely physical, cognitive and emotional engagement (Macey & Schneider, 2008).

Kahn and Heaphy (2014) identified a need to focus on the effects of relationships on work engagement. Relationships are the backbone of getting work accomplished, either on an individual or team level (Bechky, 2006). In pursuing the relational contexts of engagement with specific reference to leaders, studies have confirmed the explanation of work engagement through psychological capital. Simonis and Buitendach (2013) found a significant relation between psychological capital and work engagement among call centre employees. Similarly, Siu et al. (2013) found empirical evidence of a relation between psychological capital and study engagement - among university students. Both studies confirm the role of psychological capital in enhancing work engagement as one of the desirable workplace outcomes.

Research in this area has been focusing on the individual level of analysis. More specifically research focussed on individual employees or leaders and the characteristics of the individual (Yammarino, Dionne, Schriesheim, & Dansereau, 2008). A need exists to explore the effects of individual and organisational level variables on work engagement (Yammarino et al., 2008). Authentic leadership and psychological capital are examples of individual-level variables. Organisational climate is a case of a variable on an organisational level. Studies have focused more on the effects perceptions of job demands and resources on engagement (Bakker & Demerouti, 2008; Fleck & Inceoglu, 2010), but psychological capacities of employees have not often been considered.

Psychological Capital

Psychological capital is a person's positive psychological state of development and is characterised by four components, namely self-efficacy, optimism, hope and resiliency (Luthans, Youssef, and Avolio, 2007). Each of these components has a considerable theory that has contributed to a combined theoretical foundation of psychological capital (Luthans, et al., 2007a).

Self-efficacy is based on Bandura's (1997) social cognitive theory which attempts to understand human reasoning, action motivation, and emotion. The theory assumes that people are active shapers instead of passive reactors of their environments (Kappagoda, Othmans, & de Alwis, 2014). Self-efficacy refers to the belief that a person has abilities to find the necessary motivation and resources to accomplish tasks in a given context (Avey, Luthans, & Jensen, 2009). Self-efficacious people believe in their strengths. Therefore they generate motivation, cognitive resources and courses of action required to accomplish specific tasks. Self-efficacy affects the behaviour that people engage in, and how much they persevere in their efforts in the face of obstacles and challenges.

Snyder et al. (1991) define *hope* as an interactively derived sense of successful (a) agency (goal-directed energy) and (b) pathways (planning to meet goals). Hope reflects the belief that one can find pathways to desired goals and become motivated to use those pathways (Avey et al., 2009; Luthans, Avolio, Avey, & Norman, 2007). Hopeful people are motivated by being aware of their capability to come up with different ways of succeeding in what they are doing.

The concept *optimism* is based on the theory of attribution founded by Seligman (1998). Optimists anticipate positive things to happen to them. Optimists believe that positive events come about as a result of internal, permanent and inescapable causes, and that negative events are caused by external, temporary and situation-specific ones (Luthans et al., 2007; Seligman, 1998). Optimists engage in more focused and active coping than pessimists.

The theoretical foundation for *resilience* is the work of Masten (2001) and Masten and Reed (2002). Resilience is defined as “a positive coping and adaptation in the face of significant risk or adversity” (Luthans, Avolio et al., 2007, p. 547). Resilient people have abilities to deal with adversity, uncertainty, overwhelming events and changes such as increased responsibility (Luthans, et al., 2007a; Masten, 2001). They can deal with difficult situations, embrace new learning and experiences, and find meaning in life (Luthans et al., 2007a).

Psychological capital as a high-order composite and the individual positive psychological resources/components have been found to be related to work engagement (Sweetman & Luthans, 2010; Youssef-Morgan & Bockorny, 2014). Research by Xanthopoulou, Bakker, Demerouti, and Schaufeli (2009a, 2009b) found personal resources (e.g., self-efficacy and optimism) and job resources affect work engagement. Psychological capital therefore is a resource set that can mediate the relation between job resources and engagement (Youssef-Morgan & Bockorny, 2014).

Authentic Leadership

Leaders play a critical role in creating an environment conducive to work engagement in organisations (Kahn & Heaphy, 2014; Soane, 2014). According to Harter and Adkins (2015), leaders’ behaviours account for up to 70% of the variance in work engagement scores. Trust in a leader, which is affected by authentic leadership, leads to work engagement (Wang & Hsieh, 2013). Porath (2014) found that employees were 55% more engaged when leaders treated them with respect. Half of workers in her study did not feel respected by their leaders.

Authentic leaders can be participative, directive, or even authoritarian. However, they act with personal values and convictions to build credibility and win the respect and trust of individuals (Avolio, Gardner, Walumbwa, Luthans, & May, 2004). Authentic leaders want to serve others through their leadership. Furthermore, they are interested in empowering people.

Authentic leadership is a high-order core construct composed of four related components, namely, self-awareness, balanced processing, internalised moral perspective, and relational transparency (Luthans et al., 2007b). Self-awareness refers to the extent that a person is conscious of his/her personal characteristics and how these impact others (Penger & Černe, 2014). Balanced processing refers to the extent to which leaders show that they objectively analyse data free from bias before coming to a decision (Penger & Černe, 2014). Authentic leaders do not distort, exaggerate or ignore information that has been collected, but rather pay attention to both positive and negative interpretations about themselves and their leadership style. Internalised moral perspective means that leaders possess and display internal moral standards and values rather than adopting behaviours due to external pressure (Penger & Černe, 2014). This process includes one's motives, goals and values that are completely transparent to followers, leading by example and demonstrating consistency between espoused theories and theories-in-use (Avolio, 2005). Relational transparency encompasses all of the earlier capabilities in the act of open sharing of information and self-disclosure. Authentic leaders are transparent in revealing their expressions to their followers (Mazutis & Slawinski, 2008).

According to Avolio et al. (2004), there is a process that links authentic leadership with employees' attitudes and behaviours. Leaders affect the identities of followers, which, in turn influence their self-regulatory processes. More specifically, leaders influence the identities of followers because they identify personally with leaders and through social identification with a collective. Concerning self-regulatory processes of followers, leaders develop hope through personal identification with their followers. Hope is instilled through prolonged interaction with hopeful and responsive actors. Both agency ("willpower") and pathways ("waypower") as components of hope are affected by authentic leaders (Avolio et al., 2004). Hope, in turn, leads to engagement and positive psychological outcomes. Authentic leaders also link with followers' optimism. Authentic leaders affect the optimism of followers because they identify with leaders and they affect positive emotions.

These four factors were found to be part of a higher-order factor (Rego et al., 2012), and which is the central factor among the four, overlapping authentic leadership components. Authentic leadership was found to have an effect on important work attitudes and behaviours (Rego et al., 2012).

The influence of authentic leadership on employee outcomes may be mediated by other factors such as psychological capital and supportive organisational climate (Khan, 2010). There have been several theoretical works in the literature that propose a link between authentic leadership, psychological capital and performance (Avolio & Gardner, 2005). Hence authentic leaders contribute to employees being personally engaged in their work.

Supportive Organisational Climate

Luthans, Norman et al. (2008, p. 225) defined supportive organisational climate as “the overall amount of perceived support employees received from their immediate peers, other departments, and their supervisor that they view as helping them to perform their work duties.” A supportive context is needed for human resources to achieve sustainable growth and performance. A supportive organisational climate refers to the perceived support employees feel they receive from their leaders and colleagues that help them to perform their work duties successfully (Luthans et al., 2008). This perceived supportive climate relates to the desired outcomes such as work engagement (Luthans et al., 2008).

Several researchers attempted to link authentic leadership with positive organisational behaviour (Luthans & Avolio, 2009; Yammarino et al., 2008), and work engagement (Alok & Israel, 2012; Hassan & Ahmed, 2011). Research provides evidence that authentic leadership and work engagement are related (Gardner, Avolio, Luthans, May, & Walumbwa, 2005). When the employees are treated in a fair and caring manner, they are more committed and more likely to have positive attitudes concerning their work (Dirks & Ferrin, 2002; Jensen & Luthans, 2006).

Several studies have investigated the relation between authentic leadership, psychological capital, and work engagement. Authentic leaders foster positive organisational climates that are moral, communicative and supportive (Woolley, Caza, & Levy, 2011). These positive organisational climates affect the hope, optimism, self-efficacy and resilience of employees (Luthans & Avolio, 2003).

The perceptions of a supportive climate may create the positive conditions necessary for psychological capital to flourish (Luthans et al., 2008). Psychological capital may play a mediating role between supportive organisational climate and employee outcomes (Luthans et

al., 2008). For instance, when employees feel they are supported, they are likely to use their pathway of hope to try new methods for executing their tasks within their organisational context. In addition, a supportive organisational climate may act as a contextual resource for employees to 'bounce back' during adversarial times (resiliency). Employees can also remain focussed and respond in a positive way after a setback (efficacy). Finally, when employees commit mistakes, these are attributed to external, unstable and concrete issues, and will encourage employees to be more optimistic in their future attributions (Luthans et al., 2008).

A supportive context is needed for human resources to achieve sustainable growth and performance. Luthans et al. (2008) asserted that this perceived supportive climate relates to desired outcomes (e.g. work engagement). Research on organisational support climate acknowledges the importance of individual factors such as ability and effort in the link between organisational support climate and performance. There seems to be a shortage of research conducted in the area of how supportive organisational climate is contributing to work engagement. It is against this background that supportive organisational climate will be considered a supportive context within which relational contexts of personal engagement is taking place at the workplace.

Aim and Hypotheses

The aim of this study was to investigate the relations among authentic leadership, psychological capital and work engagement, to establish whether psychological capital mediates the relation between authentic leadership and work engagement and further, to establish whether supportive climate at organisational level predicts work engagement. Based on the Job Demands-Resources model, it can be expected that psychological capital change work demands into challenges (Bakker & Demerouti, 2008). Furthermore, employees with a higher psychological capital are more intrinsically motivated, which promotes work engagement.

The author proposes that a leader that displays high levels of self-awareness, balanced processing, self-guidance and relational transparency (Gardner et al., 2005; Rego et al., 2012; Zamahani et al., 2011), tends to enhance psychological capital (hope, efficacy, resilience and optimism) among employees. The perceptions of a supportive organisational climate create a positive condition for authentic leadership, psychological capital and work engagement to flourish in organisations. For the leaders to be able to provide authentic leadership, which

influences the psychological capital among employees and eventually makes employees to be engaged in their work, organisational climate should be positive and supportive.

Given the analytical strategy and based on the literature review, the following hypotheses were set for this study:

Hypothesis 1: Authentic leadership is positively associated with psychological capital.

Hypothesis 2: A supportive organisational climate on individual level is positively associated with psychological capital.

Hypothesis 3: Authentic leadership is positively associated with work engagement.

Hypothesis 4: Psychological capital is positively associated with work engagement.

Hypothesis 5: A supportive organisational climate (on organisational level) is positively associated with work engagement.

Hypothesis 6: Authentic leadership is positively associated with work engagement on organisational level.

Hypothesis 7: Psychological capital is positively associated with work engagement on organisational level.

Hypothesis 8: Authentic leadership indirectly affects work engagement via psychological capital.

Method

Research Design

The author used a quantitative research approach to achieve the research objectives. A quantitative research is descriptive and establishes association between variables. A cross-sectional survey design with questionnaires was used to obtain information from the target population. This study used a multi-level design that focused on working with individuals *within* organisations. Possible reasons for work engagement were studied within both the individual and the organisation.

Participants

The target population for this study was employees from 24 state-owned enterprises. The participating companies included regulatory, service rendering, economic and productive and

general enterprises. A convenience sampling was used to select the sample for this study. This is a type of non-probability sampling made out of the subjects or people who are conveniently easy to reach. A total of 500 respondents representing 24 organisations were approached to take part in this study. A final sample of 452 (228 male and 224 female) from 20 organisations completed the survey online resulting in a response rate of 90.4%.

The ages of the participants varied from 18 to 63 (Mean = 37.41; *SD* = 8.60). The length of service in the various companies varied between less than one year and 30 years. Concerning education, 83.4% of the participants had tertiary qualifications. Of the 452 participants, 55.8% were non-managerial employees, 33% were middle management, and the remaining 11.2% were senior or executive management. About 73% of the participants earned a salary less than N\$ 40 000 per month. Table 1 gives the characteristics of the participants.

Table 1

Characteristics of the Participants (N=452)

Item	Category	Frequency	Percentage
Gender	Male	228	50.4
	Female	224	49.6
Age	Below 23	4	0.9
	23 – 30	105	23.2
	31 – 39	164	36.3
	40 – 45	90	19.9
	46 – 55	79	17.5
	Over 55	10	2.2
	Grade 12	75	16.6
Education	Diploma	130	28.8
	Degree	146	32.3
	Postgraduate degree	101	22.3
	Less than 3	18	4.0
Year of Experience	3 – 8	139	30.7
	9 – 14	102	22.6
	15 – 20	89	19.7
	21 – 26	62	13.7
	Over 27	42	9.3
	Executive Management	23	5.0
	Senior Management	28	6.2
Job Level	Middle Management	149	33.0
	Non-Managerial	252	55.8
Years in Job	Less than 1	11	2.4
	1 – 2	122	27.0
	3 – 5	133	29.4
	6 – 10	114	25.2
	More than 10	72	16.0
Salary Range p/m	Less than N\$ 10 000	46	10.2
	10 000 – 19 999	163	36.1
	20 000 – 39 999	122	27.0
	40 000 – 59 999	54	11.9
	60 000 – 79 999	25	5.5
	80 000 – 99 999	11	2.4
	Over 100 000	31	6.9

Measuring Instruments

The study used the *Authentic Leadership Questionnaire* (ALQ; Avolio & Gardner, 2005) to measure authentic leadership. The questionnaire comprises 16 items, which measure four scales of the authentic leadership, i.e. self-awareness (four items, e.g. “My leader accurately describes how others view his or her capabilities”), balanced processing (three items, e.g. “My leader analyses relevant data before coming to a decision”), ethical/moral/self regulation (four items, e.g. “My leader makes decisions based on his or her core values”) and relational transparency (five items, e.g. “My leader tells you the hard truth”). The answering format for all the questions ranges from 1 (*not at all*) to 5 (*frequently, if not always*). Zamahani et al. (2011) and Rego et al. (2012) found reliabilities for this instrument to range between $\alpha = 0.80$ and $\alpha = 0.93$ for the four scales.

The *Supportive Organisational Climate Questionnaire* (SOCQ; Rogg, Schmidt, Shull, & Schmidt, 2001) was used to measure supportive organisational climate. Three of the four original dimensions considering managerial, employees and departments’ perspectives (16 items) were used. The fourth dimension was not used eventually used since its items load well to latent variable that was measured. Sample items of the questionnaire include “Managers follow through on commitments,” “Departments cooperate to get the job done effectively and efficiently,” and “Employees trust each other”. The response categories of the questionnaire vary from 1 (*strongly disagree*) to 6 (*strongly agree*). Hughes, Avey, and Norman (2008) found the scale and its components to be reliable within acceptable levels, with alphas ranging from 0.80 to 0.90.

The study used the *Psychological Capital Questionnaire* (PCQ; Luthans, Avolio, Avey & Norman, 2007) to measure psychological capital. The 24-item PCQ consists of measure dimensions, namely hope (six items, e.g. “There are lots of ways around any problem”), resilience (six items, e.g. “I feel I can handle many things at a time at this job”), optimism (six items, e.g. “If something can go wrong for me work-wise, it will”), and self-efficacy (six items, e.g. “I feel confident helping to set targets/goals in my work area”). The PCQ responses are on a six-point Likert-type scale with categories ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). The subscales and the overall PCQ demonstrated adequate internal reliability and construct validity (Avey, Nimnicht, & Pigeon, 2010).

An adapted version of the *Work Engagement Scale* (WES; May, Gilson, & Harter, 2004) was used to measure work engagement. For all items, a seven-point frequency scale varying from 1 (*almost never or never*) to 7 (*always or almost always*) was used. The eight items reflect the three components of Kahn's (1990) conceptualisation of work engagement, namely cognitive (two items; e.g. "I am very absorbed in my work"), emotional (three items; e.g. "I am passionate about my work"), and physical engagement (three items; e.g. "I feel alive and vital at work"). An alpha coefficient of 0.85 was found for the total scale (Rothmann & Rothmann, 2010).

Data Analysis

Latent variable modelling with Mplus version 7.31 (Muthén & Muthén, 1998-2014) was used to test the measurement and structural models. Latent variable modelling is advantageous. Since the biasing effects of measurement error are reduced, multilevel models can be tested, indices of overall fit are obtained and indirect effects can be evaluated (Wang & Wang, 2012). A weighted least-squares with mean and variance adjustment (WLSMV) estimator was used to test the models. This estimator is robust; it does not assume normally distributed variables and it provides the best option for modelling categorical data (Wang & Wang, 2012).

The following Mplus fit indices were used in this study: absolute fit indices, which included the Chi-square statistic (the test of absolute fit of the model), the weighted root mean square residual (WRMR) and the root means square error of approximation (RMSEA); incremental fit indices, which included the Tucker-Lewis Index (TLI); and the Comparative Fit Index (CFI) (West, Taylor, & Wu, 2012). Criticism against the use of χ^2 is that it is a strict test that detects trivial differences between the hypothesised model and the data. Therefore the χ^2 test is often not of general interest when the fit of models is tested.

Various practical fit indices have been developed to evaluate model fit. The Comparative Fit Index (CFI) compares the hypothesised and independent models but takes sample size into account. The Tucker-Lewis Index (TLI) is a relative measure of co-variation explained by the hypothesised model that has been specifically designed for the assessment of factor models. Critical values for good model fit have been recommended for the CFI and TLI to be acceptable above the 0.90 level (Wang & Wang, 2012), although Hu and Bentler (1999) recommended a cut-off value of 0.95. RMSEA provides an indication of the overall amount of error in the

hypothesized model-data fit, relative to the number of estimated parameters (complexity) in the model. The recommended acceptable levels of the RMSEA should be 0.05 or less and should not exceed 0.08. West et al. (2012) point out that cut-off standards for model fit recommended by Hu and Bentler (1999) were based on simulation studies and should be used as rough indicators only. This is even more applicable when models and data further away from confirmatory factor analysis models with complete data are studied.

Raykov's (2009) confirmatory factor analysis-based estimate of scale reliability (ρ) was computed for each scale. This estimate of reliability provides a more dependable estimate of scale reliability if items are not tau-equivalent (Wang & Wang, 2012).

Multilevel analyses were performed with individual scores nested within organisations. The robust maximum likelihood estimator (MLR) was used to test multilevel models on factor scores that were computed based on the measurement model. Multilevel modelling allows the researcher to consider both the individual and organisational levels of hierarchically structured data simultaneously (Hox, 2010). Particularly, the author investigated the extent to which employees from the same organisation shared similar perceptions in terms of organisational support. Intra-class correlations (ICC) provide an estimate of what proportion of the total variance is attributed to within area/role homogeneity (Hox, 2010).

The multilevel analyses were carried out in the following steps (Geiser, 2010). First, the ICC was calculated in the null model (intercept-only model) to determine what proportion of the variance in work engagement is attributable to organisational climate and what is attributable to the individual level. No predictor was included in the first step. Second, the one-way random effects model was tested. This model included predictors on an individual level (authentic leadership and psychological capital), but no predictor at an organisational level. Third, the means-as-outcome model was tested. This model included a predictor at the organisational level (organisational climate), but no predictors on an individual level. Fourth, an intercepts-and-slopes-as-outcomes model was tested. In this model, the regression lines for the regressions of the independent variables on the dependent variable could now have a different intercept and a different slope in each organisation. Lastly, a fixed effects model was tested.

Research Procedure

The author obtained permission from state-owned enterprises to administer the online survey to employees. Participation in the survey was voluntary and anonymous. By virtue of their involvement, the respondents were informed that they have given consent to partake in the survey. Confidentiality was emphasised throughout the research process. The author conducted this research within the ethics approval (Number: SH-SB-2012-0074), by the Ethics Committee of North-West University (Vaal Triangle Campus), South Africa in February 2013. The survey questionnaire was administered online. A covering note accompanied the questionnaire. The note explained the purpose and emphasised confidentiality of the research project. The author made use of a questionnaire to gather data online between February and July 2013. The online survey captured the raw data. The completed raw data were then converted to an SPSS dataset for use in Mplus 7.31.

Results

Testing the Measurement Model

Using the confirmatory factor analysis (CFA), the author tested a four-factor measurement model as well as alternative models to assess whether each of the measurement items would load significantly onto the scales with which they were associated. The author tested five models.

Model 1 consisted of four latent variables: Authentic leadership, which consisted of five latent variables: relational transparency (measured by means of four items), self-regulation/moral/ethics (measured by means of four items), balanced processing (measured by means of three items) and self-awareness (also measured by means of four items). Supportive organisational climate consisted of three latent variables: managerial climate (measured by means of eight items), employee climate (measured by means of five items) and departmental climate (measured by means of three items). Psychological capital consisted of four latent variables, namely self-efficacy (measured by means of six items), hope (measured by means of six items), resilience (measured by means of six items) and optimism (also measured by means of six items). Work engagement was measured by means of eight items. In Model 1, the author allowed all the latent variables to correlate.

Models 2, 3, 4, and 5 followed the same template. For Model 2, the author specified 24 items of psychological capital (without classifying them according to the four components of hope, efficacy, resilience and optimism) and correlated them with the four latent variables of authentic leadership (relational transparency, self-regulation, balanced processing and self-awareness), three latent variables of supportive organisational climate (managerial, employee and departmental), and the nine items measuring work engagement. The author further specified in Model 3 the four latent variables of psychological capital, and allowed the 16 items measuring the latent variables of authentic leadership (without classifying the four components of relational transparency, self-regulation, balanced processing and self-awareness respectively), with the three latent variables measuring supportive organisational climate, and the nine items that measure work engagement. For Model 4, the author specified four latent variables measuring psychological capital loaded onto four latent variables measuring authentic leadership, three latent variables measuring supportive organisational climate and the nine items of work engagement. Model 5 specifies all the 64 items together that measure four variables: psychological capital, authentic leadership, supportive organisational climate and work engagement as one latent factor.

Tables 2 presents fit statistics for the test of the various models.

Table 2

Fit Statistics of the Competing Measurement Models

Model	χ^2	<i>df</i>	TLI	CFI	RMSEA	WRMR
1	3934.40	1998	0.95	0.95	0.05* [0.044, 0.048]	1.52
2	4331.27	1996	0.94	0.94	0.05* [0.049, 0.053]	1.63
3	3971.47	1996	0.95	0.95	0.05* [0.045, 0.049]	1.52
4	3826.47	1992	0.95	0.96	0.05* [0.043, 0.047]	1.48
5	15685.92	2015	0.66	0.67	0.12 [0.121, 0.124]	3.99

χ^2 , chi-square statistic; *df*, degrees of freedom; TLI, Tucker-Lewis Index; CFI, Comparative Fit Index; RMSEA, root mean square error of approximation; WRMR, Weighted Root Mean Square Residual

The author obtained an χ^2 value of 3934.40 (*df* = 1998) for the hypothesised measurement model. The fit statistics on the four fit indices were acceptable: TLI = 0.95, CFI = 0.95 and RMSEA = 0.05 and WRMR = 1.52. The hypothesised model had a fairly acceptable fit with the data on the fit indices.

The analysis continued in an exploratory mode to improve the fit of the selected model. One item measuring optimism from the psychological capital questionnaire, Item 20: “If something goes wrong for me work-wise, it will” was removed because of its high residual variance and low R^2 value. Another item from Engagement Scale, Item 3: “When I am working, I often lose track of time,” was removed for the same reason. The statistics for the revised model showed that the model fit improved significantly: $\chi^2 = 3646.80$, $df = 873$; CFI = 0.96; TLI = 0.96; RMSEA = 0.05 [0.044, 0.048] and WRMR = 1.48. These statistics show a good fit for the hypothesised model.

Testing the Structural Model

Table 3 reports the descriptive statistics, reliabilities and correlations of authentic leadership, psychological capital, supportive organisational climate, and work engagement.

Table 3

Descriptive Statistics, Reliability Coefficients and Correlations of the Scales (N = 452)

Variable	ρ	1	2	3
1. Psychological capital	0.97	-	-	-
2. Authentic leadership	0.87	0.37**	-	-
3. Organisational climate	0.82	0.56**	0.69**	-
4. Work engagement	0.82	0.77**	0.35**	0.51**

* $p < 0.05$; ** $p < 0.01$

Table 3 shows scale reliabilities ranging from 0.82 to 0.97, which indicate acceptable internal consistency (Raykov, 2009; Wang & Wang, 2012). Table 3 shows that authentic leadership is positively related to psychological capital (medium effect). Hypothesis 1 is accepted. Psychological capital is also positively related to a supportive organisational climate on an individual level. Hypothesis 2 is accepted. Furthermore, authentic leadership is positively related to work engagement (medium effect). Finally, psychological capital is significantly related to work engagement (large effect).

Multilevel Analyses

This section explains the multilevel regression model for two-level data. The parameters of multilevel regression models are estimated using regression coefficients and the variance components. The usual estimators in multilevel regression analysis are maximum likelihood (ML) estimators, but in this study, the MLR was used as the estimator. Table 4 presents the parameter estimates and standard errors for both models. The models with a lower deviance fit better than models with a higher deviance.

Table 4

Models of Work Engagement

Model	M0: Intercept only	M1: One-way Random Effects	M2: Means as Outcomes	M3: Intercepts and Slopes as Outcomes	M4: Fixed Effects
Fixed part	Coefficient (SE.)	Coefficient (SE.)	Coefficient (SE.)	Coefficient (SE.)	Coefficient (SE.)
Intercept	-0.02 (0.04)	-0.02 (0.02)	-0.01 (0.04)	-0.02 (0.03)	-0.02 (0.02)
Authentic leadership		0.06 (0.03)**		0.07 (0.04)	0.06 (0.04)*
Psychological capital		0.85 (0.02)**		0.84 (0.09)**	0.85 (0.02)**
Organisational climate			0.31 (0.16)*	0.02 (0.08)	0.03 (0.08)
Random part					
σ^2_e	0.27 (0.02)**	0.11 (0.01)**	0.27 (0.02)**	0.11 (0.01)**	0.11 (0.01)**
σ^2_{u0}	0.02 (0.03)	0.00 (0.00)	0.01 (0.01)	0.00 (0.01)	0.00 (0.00)
σ^2_{u1}				0.00 (0.02)	
σ^2_{u2}				0.00 (0.01)	
Deviance	701.48	298.08	691.93	297.53	297.90

* $p < 0.05$; ** $p < 0.01$

σ^2_e - employee-level residual errors; σ^2_{u0} - organisations-level residual errors

The intra-class correlation was 0.01. Table 4 indicates that work engagement is significantly predicted by authentic leadership (beta = 0.06, SE = 0.03, $\beta = 0.07$, $p < 0.01$), and psychological capital (beta = 0.85, SE = 0.02, $\beta = 0.74$, $p < 0.01$). These two variables explained 59.6% of the total variance in work engagement. Table 4 also shows that work engagement is

significantly predicted by organisational climate (beta = 0.31, SE = 0.16, $\beta = 0.82$, $p < 0.05$). Organisational climate explained 67% of the variance in work engagement.

In Table 4, the intercept-only model estimates the intercept as -0.02, which is the average work engagement across the organisations and employees. The variance of the employee-level residual errors, symbolised by σ^2_e , is estimated to be 0.27. The variance of the organisations-level residual errors, symbolised by σ^2_{u0} , is estimated to be 0.02. The parameter for employee-level is larger than the corresponding standard error; therefore significant, while the parameter for organisations-level is smaller than the corresponding standard error and is not significant. Since the intercept-only model contains no explanatory variables, the residual variances represent unexplained error variance. The deviance reported in Table 4 is a measure of model misfit: when explanatory variables to the model were added the deviance is expected to go down.

The second model in Table 4 includes authentic leadership and psychological capital on an individual level as explanatory variables. The regression coefficients of authentic leadership and psychological capital are significant, although the regression coefficient of the latter variable is substantially higher. Hypotheses 3 and 4 are accepted.

To test hypothesis 5, the climate of each organisation was computed based on the average rating thereof by employees of a specific organisation. The third model in Table 4 includes climate on an organisational level as an explanatory variable. The regression coefficient of organisational climate is significant, although the standard error is also high. However, the fourth model showed that when authentic leadership and psychological capital are on an individual level, and organisational climate on a group level were entered into the analysis, the latter variable was not statistically significant.

The model with the explanatory variables includes variance components for the regression coefficients of authentic leadership and psychological capital, symbolised by σ^2_{u1} and σ^2_{u2} in Table 4. The variance of the regression coefficients for both authentic leadership and psychological capital are estimated to be -0.00 with a standard error of 0.01, and 0.00 with a standard error of 0.01 respectively. These variance components are not significant. Hypotheses 5-7 are rejected.

Indirect Effect

To determine whether work engagement was indirectly affected by authentic leadership, the procedure explained by Hayes (2013) was used. Bootstrapping (with 10,000 samples) was used to construct two-sided bias-corrected 95% confidence intervals (CIs) so as to evaluate indirect effects. The results showed that authentic leadership had a significant effect on work engagement via psychological capital: $\beta = .22$, $SE = 0.04$, $p < 0.01$, 95% BC CI [.11, .26]. Hypothesis 8 is accepted.

Discussion

The purpose of this study was to investigate the relation between psychological capital and work engagement and to establish the effect of antecedents of psychological capital such as authentic leadership and supportive organisational climate on work engagement in the state-owned enterprises in Namibia. Latent variable modelling confirmed that the measurement model was reliable and valid. An analysis of the correlations indicated that psychological capital was significantly related to authentic leadership, supportive organisational climate and work engagement (all rated on an individual level). Similarly, authentic leadership was also found to be statistically significantly related to supportive organisational climate and work engagement.

The relation between psychological capital and work engagement implies that when the level of psychological capital is high, employees in state-owned enterprises tend to be engaged in their work. The results suggest a strong prevalence of workers' reported psychological capital and their perception of how engaged they are to their work and organisations. This finding supports and confirms the conclusion of other researchers (Siu et al., 2013; Simonis & Buitendach, 2013), namely, that psychological capital plays a vital role in enhancing work engagement.

Employees who display a high level of psychological capital tend to perceive themselves and be perceived by others as highly engaged in their work. They are likely to accomplish their duties well. This positive outcome may be perceived to lead employees to improve their level of psychological capital (resources), gain confidence in their work (self-efficacy), anticipate a

positive future in their work (optimism and hope), and lead them to endeavour new challenges in their work (Siu et al., 2013).

The relation between a supportive organisational climate and work engagement yielded a positive result. A supportive organisational climate explained 67% of the variance in work engagement. The study considered a supportive climate within which relational contexts of personal engagement is taking place such as managerial, departmental and employee dimensions. The result of this research confirmed the findings of Luthans et al. (2008), which demonstrated that the perceived supportive climate relates well to the desired employees outcomes such as work engagement.

The relations between authentic leadership, psychological capital and work engagement were positive and statistically and practically significant. Higher authentic leadership was associated with higher psychological capital, and higher work engagement. Larson, Norman, Hughes, and Avey (2013) suggested that leadership and employees' level of psychological capital results in higher levels of work engagement. The level of psychological capital of leaders which may influence them to act authentically and the level of psychological capital of the followers, impact the perception of the followers to benefit their organisations and to be more engaged with their work (Larson et al., 2013).

The relations between authentic leadership, psychological capital and work engagement are more attributed to the degree of similarity between employee and leader psychological capital which affect the roles of individuals in organisations (Larson et al., 2013). When there is no similarity of psychological capital between employees and their leaders, a dysfunctional relationship may occur which may lead to disengagement of employees with their work (Larson et al., 2013). Furthermore, authentic leadership had an indirect effect on work engagement via psychological capital. The level of work engagement amongst employees is likely to increase if employees have a sense of trust in the competence and capability of their leaders (Hasan & Ahmed, 2011). Psychological capital mediated this effect.

Organisational climate as perceived by individuals was related to psychological capital and work engagement. This finding is congruent with previous research on the role of psychological capital in the supportive organisational climate (Luthans et al., 2008; Nigah, Davis & Hurrell, 2012). Supportive organisational climate affect psychological capital, which

affects work engagement. If employees perceive that the climate in their organisations is supportive, they are likely to display a high level of psychological capital, which in turn contribute to them being engaged to their work (Luthans et al., 2008).

The study employed multilevel analyses to determine the relation between different variables at both the individual and organisation level. Researchers have shown that a supportive organisational climate is positively correlated to work engagement (Luthans et al., 2008), that psychological capital is related to work engagement (Simonis & Buitendach, 2013; Siu et al., 2013); and that authentic leadership leads to work engagement (Porath, 2014; Wang & Hsieh, 2013). However, the results of this study showed that these relations did not exist on an organisational level. As a result, the author could not confirm the relation between work engagement and supportive organisational climate, authentic leadership and psychological capital.

Different factors might have contributed to poor predictions on organisational level. The sample size on the group level was relatively small. The limited number of organisations might have affected both the estimates and standard errors of the intercepts and random slopes. The negative impact of the small sample size decreases the power to identify and confirm some of the relationships that were hypothesised. Moineddin, Matheson, and Glazier (2007) recommend that a minimum group size of 50 is required to yield acceptable and valid estimates in a multilevel analysis approach. For future studies, the collection of data should be done from a large number of groups to ensure accurate analyses of data that illustrate the required effects and produce the anticipated results.

This study had various other limitations. First, the research design was cross-sectional, whereby all the variables were measured simultaneously, and there is no evidence to suggest the causal relations. Although this study confirmed the relation between psychological capital and work engagement, and between supportive organisational climate and work engagement, by no means does this study imply causal inferences between different variables. The study cannot rule out the possibility of alternative hypotheses. Second, the size of the non-probability, convenient sample used was relatively small at the organisational level. Therefore the findings from this study cannot be used alone to generalise the outcomes to the entire population. Third, the study runs a risk of common method bias, whereby all the questionnaires used in the study were self-reported measures. The common method variance refers to the variance associated

with the systematic influences on constructs by the method of collecting data (Whitman & Woszczynski, 2004). The problem with common method variance is that the researcher may end up finding some significant effects when the real effect was caused by the data collection used. However, Johnson, Rosen, and Djurdjevic (2011) argue that common method variance is rarely strong enough to invalidate findings. This limitation can be minimised by employing multi-source data such as in-depth interviews and objective ratings.

Recommendations

The study confirmed that authentic leadership indeed has an effect on work engagement. The study also confirmed that psychological capital has an influence on work engagement and that authentic leadership relates positively to psychological capital. These findings imply that authentic leaders affect the psychological capacities of followers as well as their engagement. In addition to authentic leadership, employees tend to be engaged when their levels of psychological capital are high.

Based on these findings, the following recommendations are made: Managers and supervisors should be trained to develop their skills and capacities in authentic leadership. Authentic leadership must be integrated within the leadership development programmes of organisations to make managers aware of the benefits it has to work engagement. Management should be held accountable to keep their employees engaged since they have a significant role to play in contributing to work engagement through the type of leadership they display. This can be done by including work engagement in their performance reviews, whereby managers will be rated on how well they keep their employees engaged. Organisations should implement training and development programmes aimed at improving psychological capital. Developing psychological capital will enhance employees' level of engagement and encourage positive outcomes such as work performance (Luthans et al., 2007b).

A need exists for a longitudinal study to be conducted on psychological capital and its antecedents and outcomes to enhance a body of knowledge of the research on organisational behaviour. It is also necessary to use a larger sample and explore multi-level analysis of these concepts to contribute to the future research on work engagement, authentic leadership and psychological capital.

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CHAPTER 4

MANUSCRIPT 3

Psychological Capital, Supportive Organisational Climate and Performance within State-owned Enterprises

ABSTRACT

The aim of the study was to investigate the relationship between psychological capital, supportive organisational climate, and performance in the context of state-owned enterprises. A cross-sectional survey design was used with a convenience sample of 452 employees within Namibian state-owned enterprises. The Psychological Capital Questionnaire, Supportive Organisational Climate Questionnaire, Performance-related Attitudinal Questionnaire and Organisational Performance Questionnaire were administered. The results showed that authentic leadership and a supportive organisational climate had a positive impact on psychological capital. Psychological capital was not associated with organisational performance however psychological capital predicted job performance on an individual level.

Keywords: Psychological capital, supportive organisational climate, job performance, organisational performance

Changes that are taking place in society such as the impacts of globalisation, trends in the global financial markets, and the effects of rapidly-changing technological innovations put pressure on organisations to survive and remain relevant and sustainable (Friedman, 2006; Van den Heuvel, Demerouti, Bakker, & Schaufeli, 2010). Organisations' competitive advantage is increasingly influenced by the way they manage job performance of their employees to achieve organisational performance. At the centre of organisational performance is the job performance of employees, which plays a significant role in enhancing the achievement of the goals and objectives of organisations (Sampath Kappagoda, Othman, & De Alwis, 2014).

The importance of job performance prompts the need to understand the factors influencing performance. This understanding enables managers and supervisors to explain, predict, measure and manage job performance of employees (Campbell, McCloy, Oppler, & Sager, 1993), as well as the performance of the organisation. Researchers have identified different factors that can have an effect to job performance (Sampath Kappagoda et al., 2014). Among these factors are: leadership (Şahin, Cubuk, & Uslu, 2014; Zamahani, Ghorbani, & Rezaei, 2011), organisational climate (Luthans, Norman, Avolio, & Avey, 2008; Selamat, Samsu, & Kamalu, 2013), and psychological capital (Kappagoda Sampath et al., 2014).

Studying the effects of psychological capital on job performance has been prompted by the fact that business and organisational development has been continuously changing within the last 20 years, moving towards managing the intangible assets more than physical resources, and focusing on managing processes instead of concrete outputs (Şahin, Cubuk, & Uslu, 2014). This type of study has also been prompted by the ongoing quest to extend positivity to the workplace by focusing on potential growth of employees, their well-being and quality of life (Seligman & Csikszentmihalyi, 2000).

The strength of the relationship between psychological capital and job performance can further be enhanced by different organisational and cultural factors (Sampath Kappagoda et al., 2014), such as organisational support. Organisational support is an effort by management to ensure that the flow of information is sustainable and to keep positive relations throughout the organisation that make employees feel appreciated. In addition, management's positive interaction with employees contributes to employees' positive attitudes toward the organisation (Eisenberger, Huntington, Hutchinson, & Sowa, 1986). A supportive organisation is engaged with its employees, and this increasing support brings about positive work behaviours

(Eisenberger, Fasolo, & Davis-LaMastro, 1990). With a supportive organisational climate, employees tend to advance themselves and progress in their work (Erdem, Gökmen, & Türen, 2015). Positive organisational support and work-related interventions may have positive impact on performance (Cameron, 2003, Cameron, Bright, & Caza, 2004). The organisational climate within which employees are working contributes to psychological capital and job performance. Luthans et al. (2008) found that psychological capital mediates the relationship between supportive organisational climate and individual employee performance. Psychological capital mediated the relationship between supportive organisational climate and job performance of employees, which will ultimately contribute to organisational performance (Luthans et al., 2008).

Luthans, Avolio, Avey, and Norman (2007) have demonstrated the need for further investigation of psychological capital to generalise its effects on different work-related variables and in different contexts (Sampath Kappagoda et al., 2014). Research conducted in both the USA and China has showed a positive relationship between psychological capital and job performance. Few empirical studies have been conducted on psychological capital in Africa. From my knowledge, no studies have investigated the relationship between psychological capital and job performance in state-owned enterprises in Africa.

Research is needed regarding the antecedents and outcomes of psychological capital, not only in the African context but internationally as well. More specifically, information is needed regarding the relation between psychological capital and its possible antecedents in a multilevel design that includes both individual and organisational levels (Luthans, 2012). Studies have just begun to expand psychological capital into other units of analysis, alternative measures, and domains of application (Luthans, 2012). From my understanding, no studies have taken a multilevel approach in analysing psychological capital, the antecedents and outcomes within and between organisations. Research is also needed regarding the possible mediating and moderating effects of psychological capital on the relationships between antecedents and outcomes thereof. It is based on these research gaps that this study will focus on investigating the relationship between psychological capital and performance and the mediating effects of psychological capital on the relationship between supportive organisational climate and job and organisational performance in SOEs of Namibia.

Psychological Capital

Psychological capital is defined as “an individual’s positive psychological state of development characterised by: (1) having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks; (2) making a positive attribution (optimism) about succeeding now and in the future; (3) persevering toward 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 (resiliency) to attain success” (Luthans, Youssef, & Avolio, 2007, p. 3). Psychological capital is about the state of the components of a person’s inner life. It is linked to the field of positive organisational behaviour because it is founded on theory and research, measurable, state-like, open to development and related to positive outcomes (Luthans, 2002a; Sampath Kappagoda et al., 2014). The components of psychological capital are hope, resiliency, optimism and self-efficacy.

Hope

Hope is defined as a “positive motivational state that is based on an interactively derived sense of successful (a) agency and (b) pathways” (Luthans et al., 2007, p. 546; Avey, Luthans and Jensen, 2009, p. 20). Hope consists of three major conceptual foundations: agency, pathways and goals. The agency component of hope indicates whether individuals have the will to accomplish the intended or desired effects (Luthans et al., 2007). Hope involves the motivational energy to pursue a goal. It is the will for desired goals (Snyder, 2000, Snyder et al., 1996). Hope constitutes a will to succeed and the ability to identify, clarify, and pursue the way to success (Luthans et al., 2007). Organisations with respondents reporting higher levels of hope tended to be more successful than those with lower levels of hope (Luthans et al., 2007). Fast-food store managers’ level of hope correlated with the financial performance of their unit (Peterson & Luthans, 2003). The hope level of Chinese factory workers was found to be related to their supervisory-rated performance and merit salary increases (Luthans et al., 2007).

Resilience

Resilience is an adaptive process and system that allows a person to bounce back quickly from the drawbacks of life (Sampath Kappagoda et al., 2014). It is a positive adaptation process that can rebound in the context of significant adversity or risk (Masten & Reed, 2002). Resilience refers to the “positive psychological capacity to rebound from adversity, uncertainty, conflict,

failure, or even positive change, progress and increased responsibility” Luthans, 2002, p. 702). Positive emotions enhance resilience in the face of negative events (Tugade, Fredrickson, & Barrett, 2004). Individuals may become more resilient to an adverse situation each time they effectively bounce back from a previous setback. There is a significant relationship between the resilience of Chinese workers who were undergoing major change and transformation and their rated performance (Luthans, Avolio, Walumbwa, and Li, 2005).

Optimism

Optimism is an individual difference variable that reveals the degree to which people embrace the generalized, positive anticipated events to happen to them in their lives (Carver, Scheier & Segerstron, 2010). Optimists are those individuals who make internal, stable and global attributions regarding positive events (e.g., task accomplishment) and those who attribute external, unstable, and specific reasons for negative events (e.g. a missed deadline) (Seligman, 1998). Research found a relation between optimism and job resources, which may explain the reason optimists remain positive even during demanding situations (Barkhuizen, Rothmann, & Van de Vijver, 2014). Optimism when directly applied to the workplace had a significant and positive relationship with the performance of insurance sales agents, and in the study of the Chinese factory workers, their optimism was found to have a significant relationship with their rated performance (Luthans, Avey, Clapp-Smith, & Li, 2008).

Self-efficacy

Self-efficacy represents a positive belief and is defined as a person’s confidence in his or her abilities to make active the motivation, cognitive resources and activities that are needed to accomplish specific tasks within a certain context (Stajkovic & Luthans, 1998b). This concept has been based on Bandura’s (1997) social cognitive theory, which advocates an assumption that human beings are active shapers, rather than passive reactors to their own environments (Kappagoda et al., 2014). Self-efficacy has a strong positive relationship with work-related performance (Stajkovic & Luthans, 1998b).

Each of the four components has a considerable theory and research that contribute to the development of an integrative theoretical foundation for psychological capital (Luthans et al., 2007). Psychological capital has a greater relationship with performance and job satisfaction than the four individual components that comprise it (Luthans et al., 2007). Self-efficacy, hope, optimism, and resilience are related facets of psychological capital. The overall construct of

psychological capital (self-efficacy, hope, optimism and resilience) was more consistently related to performance than each of the individual components (Luthans et al., 2007).

Supportive Organisational Climate

Because organisational climate is multifaceted, it has a range of definitions. It is a shared perception that people have on the specific characteristics of the workplace (Schneider, & Reichers, 1983). Organisational climate is defined as “a shared perception of what the organisation is like in terms of practices, policies, procedures, routines, and rewards – what is important and what behaviours are expected and rewarded – and is based on shared perceptions among employees within formal organisational units” (Bowen & Ostroff, 2004, p. 205). Supportive organisational climate is “the overall amount of perceived support employees receive from their immediate peers, other departments, and their supervisor that they view as helping them to successfully perform their duties” (Luthans et al., 2008). Several authors (Luthans and Avolio, 2003; Luthans et al., 2008) have found a relationship between organisational climate and organisational performance. In particular, several studies have found that organisational climate predicts organisational outcomes.

Luthans and Avolio (2003) confirmed the need to investigate the link between organisational climate and performance. They point out that a supportive context is needed for employees to attain sustainable growth and performance. One key aspect of employees’ performance is the amount of support they receive (Luthans & Avolio, 2003). When considering the impact of psychological capital on job performance, psychological capital needs to operate within a supportive organisational climate for it to make a positive contributing effect (Luthans & Avolio, 2003).

A supportive context is needed for human resources to achieve sustainable growth and performance (Luthans & Avolio 2003). The support that employees receive in their work is the key component for employee performance (Luthans et al., 2008). Some theoretical models related to a supportive organisational climate argue that the organisational values that are supported and reinforced by the organisation have an impact on the types of human resource systems that currently exist within the organisation (Luthans et al., 2008). It is these systems that have an impact on the organisational climate (Luthans et al., 2008). The positive attitudes

of employees and their behaviours, including individual and organisational performance are then attributed to this resulting organisational climate (Ferris et al., 1998).

A supportive climate may create the positive conditions necessary for psychological capital to flourish (Luthans et al., 2008). Psychological capital may play a mediating role between supportive organisational climate and employee outcomes (Luthans et al., 2008). For instance, when employees feel that they are supported, they are likely to use their pathways of hope to try new methods to execute their tasks within their organisational context. A supportive organisational climate may act as a contextual resource for employees to ‘bounce back’ during adversarial times (resiliency); within the supportive climate, employees can remain focused and respond in a positive way after a setback (efficacy); and lastly within the supportive atmosphere, when employees commit mistakes, these are attributed to external, unstable and specific issues, and will encourage employees to be more optimistic in their future attributions (Luthans et al., 2008). These positive organisational climates affect the hope, optimism, self-efficacy and resilience of employees.

Job Performance

Performance comprises of observable behaviours that employees display in their work (Campbell et al., 1993). Job performance is a total set of work-related behaviours that organisations expect from employees to display (Moorhead, & Griffin, 1999). It is defined as activities or observable behaviours that employees do in their work that are relevant to the goals and objectives of the organisation (Campbell et al., 1993; Motowidlo, Borman, & Schmit, 1997). Job performance is considered as both performing a service, and the service being performed. The two dimensions of job performance are task performance and contextual performance (Borman & Motowidlo, 1993).

Task performance refers to the behaviour that is associated with the accomplishment of the job (Borman & Motowidlo, 1993). This behaviour is considered as a formal requirement of an employee’s job, as stipulated in the job description. There are three dimensions of task performance, namely task proficiency – when employees display expertise and accuracy in the work at hand and produce quality work; efficiency – when employees work in a cost effective manner, use resources effectively and meet the required targets; and problem solving – when

employees make use of available information and other resources to make good decisions (Borman, Ackerman, & Kubisiak, 1994).

Contextual performance is the behaviours of employees that are aimed at maintaining and enhancing the organisation's social network and the psychological climate that supports technical tasks (Borman & Motowidlo, 1993). It comprises those interpersonal behaviours that serves in the best interest of the organisation. Five dimensions of contextual performance are volunteering to accomplish tasks, persevering with extra effort, helping and collaborating with others, following organisational rules and procedures, and approving, assisting, and defending organisational objectives (Motowidlo & Schmit, 1999).

Since human inputs have an effect on job performance which is actually a human output, psychological capital can play a significant role in predicting job performance by comparing employees who possess the required level of psychological capital and energy, drive and motivation for the job.

Organisational Performance

Organisational performance is widely defined in the literature to an extent that there is no agreed definition of the concept. It consists of the actual results of an organisation as compared to the planned goals and objectives. Organisational performance is those measures that help the organisation respond effectively to new challenges to adapt as quickly as possible to changes in the external environment (Gavrea, Ilies, & Stegorean, 2011). Organisational performance is based on the theory that assumes that organisations achieve its performance objectives within the challenges that are imposed on it by limited resources (Lusthaus & Adrien, 1998).

Although there is a wealth of research in the literature regarding performance in general, there is no uniformity when it comes to what is being referred to as organisational performance. Thus, for the purpose of this study, organisational performance is defined as “the extent to which organisations, viewed as a social system fulfilled their objectives” (Georopoulos & Tannenbaum, 1957). Organisations compete with one another and organisational performance can be determined through performance ranking to determine the performance advantage (March & Sutton, 1997). Through performance ranking, organisations are eliminated from the

net effect of organisational factors that are relevant to the benefits and shortcomings of performance (March & Sutton, 1997). For the purpose of this study, the organisational factors that were considered to compare the organisations and determine organisational performance are namely: adaptability to change - the ability of the organisations to adapt to change (Milliken 1990); organisational leadership – the ability of the organisations to provide leadership to their workforce (Chathoth & Olsen, 2002; Olsen, West & Tse, 1998); organisational success – the perceived perception for the organisation’s ability to succeed (past, present and in future) (Indermun & Saheedbayat, 2013); and corporate social responsibility (CSR) – the perceived perception of the organisations’ programmes for corporate social responsibility (Siddiq & Javed, 2014). Researchers assert that organisational performance as conceptualised by the four organisational factors, can be influenced by other factors such as supportive organisational climate (Ferris et al., 1998, Renn & Vandenberg, 1995). The supportive organisational climate is impacted by the values that are reinforced through the types of HR systems that are taking place within the organisations (Luthans et al., 2008). Ferris et al. (1998) found a positive relationship between a supportive organisational climate and organisational performance.

Aim and Hypotheses

The aim of this study was to investigate the relations among psychological capital, supportive organisational climate and performance in state-owned enterprises. The study was guided by the following question: What are the relations between psychological capital, supportive organisational climate and performance in state-owned enterprises?

Psychological capital was found to be positively related to managers’ evaluations of employee performance (Avey, Nimnicht, & Pigeon, 2010). The composite effect of psychological capital as a multi-dimensional construct can be positively correlated with job performance (Sampath Kappagoda et al., 2014). The possible relationship between supportive organisational climate and job performance can be explained by using psychological capital as a mediating factor. Luthans et al. (2008) studied whether psychological capital mediates the relationship between supportive organisational climate and job performance. Luthans et al. (2008) refer to supportive organisational climate as the amount of perceived support that employees received that assist them to pursue their work. Psychological capital indeed mediates the relationship between supportive organisational climate and employee performance (Luthans et al., 2008). In another study, Luthans et al. (2007) found a positive correlation between psychological capital and

employee performance. It is evident from these studies that the environment that is resourceful contributes to employees' psychological capital which in turn creates a positive organisational outcome.

The following hypotheses were tested:

Hypothesis 1: Psychological capital will be positively related to their job performance.

Hypothesis 2: Psychological capital will be positively related to the supportive organisational climate.

Hypothesis 3: Supportive organisational climate will be positively related to job performance.

Hypothesis 4: Supportive organisational climate will be positively related to organisational performance.

Hypothesis 5: Psychological capital and supportive organisational climate impact individual perceptions of job performance.

Hypothesis 6: Psychological capital impacts organisational performance.

Method

Research Design

A cross-sectional survey design with questionnaires as the method of data collection was used to obtain information from the target population.

Participants

Twenty state-owned enterprises (SOEs) participated in the study. The number of participants varied from six per company to 123. The companies included regulatory, service-rendering, economic and productive and general enterprises. Non-probability sampling, specifically convenience sampling, was used to select the sample for this study. A total of 500 respondents representing 24 organisations were approached to take part in this study. A final sample of 452 completed the survey and a usable survey was obtained for a response rate of 90.4%. (See Table 1 for a description of the participants).

Males comprised 50.4% of the sample and females 49.6%. The ages of the participants varied from 18 to 63 (Mean = 37.41; *SD* = 8.60). The length of service in the various companies varied between less than one and 30 years. With regard to education, 83.4% of the participants had tertiary qualifications. The distribution of participants' job level was non-managerial (55.8%), middle management (33%), senior management (6.2%) and executive management (5%). Table 1 shows the characteristics of the participants (*N* = 452).

Table 1

Characteristics of the Participants (N=452)

Item	Category	Frequency	Percentage
Gender	Male	228	50.4
	Female	224	49.6
Age	Below 23	4	0.9
	23 – 30	105	23.2
	31 – 39	164	36.3
	40 – 45	90	19.9
	46 – 55	79	17.5
	Over 55	10	2.2
Education	Grade 12	75	16.6
	Diploma	130	28.8
	Degree	146	32.3
	Postgraduate degree	101	22.3
Year of Experience	Less than 3	18	4.0
	3 – 8	139	30.7
	9 – 14	102	22.6
	15 – 20	89	19.7
	21 – 26	62	13.7
	Over 27	42	9.3
Job Level	Executive Management	23	5.0
	Senior Management	28	6.2
	Middle Management	149	33.0
	Non-managerial	252	55.8
Years in Job	Less than 1	11	2.4
	1 – 2	122	27.0
	3 – 5	133	29.4
	6 – 10	114	25.2
	More than 10	72	16.0

Measuring Instruments

Psychological capital was measured using the *Psychological Capital Questionnaire* (PCQ; Luthans et al., 2007). The Psychological capital questionnaire is a 24-item scale containing items related to hope, self-efficacy, optimism and resiliency. Participants rated their responses on a 1-6 rating scale, varying from 1 (*strongly disagree*) to 6 (*strongly agree*). Sample items include self-efficacy (e.g. “I feel confident contributing to discussions about the organisation’s strategy”), hope (e.g. “At the present time, I am energetically pursuing my work goals”), resiliency (e.g. “I can be “on my own” so to speak, at work if I have to”), and optimism (e.g. “I’m optimistic about what will happen to me in the future as it pertains to work”). The subscales and the overall PCQ were found to have demonstrated adequate internal reliability and construct validity (Avey et al., 2010; Peterson, Luthans, Avolio, Walumbwa, and Zhang 2011).

Supportive organisational climate was assessed utilising the *Supportive Organisational Climate Questionnaire* developed by Rogg, Schmidt, Shull, & Schmidt (2001). Four original dimensions considering managerial, employees and departments’ perspectives (16 items) were used. Sample items of the questionnaire include “Managers clearly communicate work objectives and responsibilities,” “Departments communicate key information to each other in a timely manner,” “Employees are committed to providing superior service to customers” and “Employees say they are proud to work here.” The response categories of the questionnaire vary from 1 (*strongly disagree*) to 6 (*strongly agree*). Hughes, Avey, and Norman (2008) found the scale and its components to be reliable within acceptable levels, with alphas ranging from 0.80 to 0.90.

The *Performance-related Attitudinal Questionnaire* (PAQ) developed for the purpose of this study was used to measure self-rated performance. The PAQ consists of four items (e.g. How would you rate your performance/effectiveness as compared with your peers?). The participants were asked to rate their responses on a Likert-type rating scale, varying from 1 (*low*) to 10 (*high*) performance. With this scale, employees were asked to rate their performance in their current job over a given period of time.

In addition to the performance-related measure, an *Organisational Performance Questionnaire* was developed to measure the perception of the overall performance of state-owned enterprises.

The performance of the state-owned enterprises was considered in four components namely, adaptability to change, organisational leadership, organisational success and corporate social responsibility. Two organisational experts, knowledgeable about Namibian state-owned enterprises, were asked to rate the performance of the enterprises on four organisational performance factors. Data from the questionnaire was gathered independently from the performance-related attitudinal questionnaire.

Data Analysis

The data was analysed by making use of Mplus 7.31 (Muthén & Muthén, 1998-2014). Items of all questionnaires were treated as categorical and the weighted least-squares with the mean and variance adjustment (WLSMV) estimator were used to test the measurement and structural models. This estimator is robust; it does not assume normally distributed variables and it provides the best option for modelling categorical data (Brown, 2006).

The following Mplus fit indices were used in this study: a) Absolute fit indices, which included the Chi-square statistic (the test of absolute fit of the model), the weighted root mean square residual (WRMR), and the Root-Mean-Square Error of Approximation (RMSEA); b) Incremental fit indices, which included the Tucker-Lewis Index (TLI). c) The Comparative Fit Index (CFI) (Hair, Black, Babin, & Anderson, 2010). TLI and CFI values higher than 0.95 were acceptable (Hu & Bentler, 1999). RMSEA values lower than 0.08 and a WRMR lower than 1 indicates a close fit between the model and the data. Two fit statistics, namely the Akaike Information Criterion (AIC) and Bayes Information Criterion (BIC), were used in addition to other fit indices to compare alternative measurement models. The AIC, which is a comparative measure of fit, is meaningful when one estimates different models. The lowest AIC is the best fitting model. The BIC provides an indication of model parsimony (Kline, 2010). Chi-square difference tests were conducted to compare alternative nested structural models (Muthén & Muthén, 1998-2014). Composite reliability was computed for each scale (Raykov, 2009). Composite reliability (ρ) is superior to Cronbach alpha coefficients when latent variable modelling is used. Pearson correlations were computed to assess the relations between the latent variables. A correlation of 0.5 is large, 0.3 is moderate, and 0.1 is small (Cohen, 1988).

Multilevel analyses were conducted with individual scores grouped according to the participating organisations. The maximum likelihood estimator was used to examine different multilevel models on factor scores that were computed based on the measurement model. Multilevel modelling can be used to analyse both the individual and organisational levels of hierarchically clustered data at the same time (Hox, 2010). Multilevel modelling can deal with data in which the times of the measurements differ from one variable to the other. With these analyses, the researcher examined the degree to which respondents from the same organisation projected similar views in terms of supportive organisational climate. Intra-class correlations (ICCs) were used to estimate the intra-class correlations. ICCs provide an estimate of what proportion of the total variance is attributed to within area/role homogeneity (Hox, 2010). ICCs determined the reliability of the responses by comparing the variability of different responses of the same variable to the total variation across all responses and all variables that were investigated.

The multilevel analyses were conducted along the following steps (Geiser, 2010). First, the ICC was calculated in the null model (intercept-only model) to determine what proportion of the variance in performance is attributable to the supportive organisational climate and what is attributable to the individual level. No predictor was included in the first step. Second, the one-way random effects model was tested. This model included predictors on an individual level (psychological capital), but no predictor on an organisational level. Third, the means-as-outcome model was tested. This model included a predictor on the organisational level (supportive organisational climate), but no predictors on an individual level. Fourth, an intercepts-and-slopes-as-outcomes model was tested. In this model, the regression lines for the regressions of the independent variables on the dependent variable could now have a different intercept and a different slope in each organisation. Last, a cross-level interaction model was tested.

Research Procedure

Ethical approval (Ethics Approval number: SH-SB-2012-0074) for this study was received from the Ethics Committee of the North-West University (Vaal Triangle Campus), South Africa in February 2013. In addition to the approval from the Ethics Committee, permission was obtained from the State-Owned Enterprises Governance Council – Secretariat, Office of the Prime Minister, Government of Namibia, to conduct research within state-owned

enterprises of Namibia. Permission was also obtained from the chief executive officers of the state-owned enterprises to administer the questionnaire in their organisations. Participation in the survey was anonymous and voluntary. The survey questionnaire was designed to such an extent that, by participating, respondents gave consent that the researcher could use the information obtained from the survey for research purposes only. The survey questionnaire was administered online. A covering note explaining the purpose and confidentiality of the study accompanied the questionnaire. A questionnaire (hosted at myresearchsurvey.com) was used to gather data online between February and July 2013. The online survey captured the raw data. The completed raw data was then converted to an SPSS dataset for use in Mplus 7.31.

Results

First, the results of tests of competing measurement models are reported. Second, the results of alternative structural models are analysed.

Testing Measurement Models

The author made use of the confirmatory factor analysis (CFA), to test a three-factor measurement model and four alternative models and to assess whether each of the measurement items would load significantly onto the scales they were associated with.

Model 1 consisted of three latent variables: a) psychological capital, which consisted of four first-order latent variables: self-efficacy (measured by six items), hope (measured by six items), resilience (measured by six items) and optimism (measured six by items); b) supportive organisational climate, which consisted of three latent variables: managerial dimension (measured by eight items), employee dimension (measured by five items), and departmental dimension (measured by three items); and c) job performance (measured by four items). All the latent variables in model 1 were allowed to correlate.

Models 2, 3, 4 and 5 followed the same template. Model 2 specified 24 observed variables measuring psychological capital (without the four first-order latent variables, namely self-efficacy, resilience, hope and optimism) and allowed them to correlate with the observed 16 variables measuring the three latent variables of supportive organisational climate i.e. managerial (measured by eight items), employee (measured by five items) and departmental

dimension (measured by three items) and four items measuring job performance. Model 3 specified four first-order latent variables: self-efficacy (measured by six items), hope (measured by six items), resilience (measured by six items) and optimism (measured six by items) and allowed to correlate on 16 items measuring supportive organisational climate (without the three latent variables namely managerial, employee, and departmental dimension), and four items measuring performance. Model 4 specified the 24 observed variables measuring psychological capital (without the four first-order latent variables, namely self-efficacy, resilience, hope and optimism) and 16 observed variables measuring supportive organisational climate (without the three first-order latent variables, managerial, employee, and departmental dimension) and allowed to correlate with performance. Model 5 specified all 44 observed variables measuring one latent factor. Table 2 presents fit statistics for the test of the various models.

The results in Table 2 showed a χ^2 value of 2337.49 ($df = 892$; $p < 0.001$) for the hypothesised measurement model, suggesting that the model did not fit the data well. However, given that it is unlikely to obtain a non-significant χ^2 test statistic, because of problems associated with null hypothesis testing and the effects of sample size (Kelloway, 2014), other fit indices provided by Mplus were also considered. The CFI = 0.95, TLI = 0.94, RMSEA = 0.05, 90% CI [0.057, 0.053], PCLOSE = $p > 0.01$, and WRMR = 1.64. The CFI and TLI values were either or close to 0.95, and the RMSEA (and its upper confidence interval) were 0.06 ($p > 0.01$), which indicate a good fit of the model to the data (Hu & Bentler, 1999).

Table 2
Fit Statistics of the Competing Measurement Models

Model	χ^2	df	TLI	CFI	RMSEA	WRMR
1	2337.49	892	0.94	0.95	0.06* [0.057, 0.063]	1.64
2	2905.77	896	0.92	0.95	0.07* [0.068, 0.073]	1.89
3	2867.99	895	0.92	0.93	0.07* [0.067, 0.073]	1.88
4	7879.37	901	0.72	0.73	0.13* [0.128, 0.134]	3.54
5	10000.38	902	0.63	0.65	0.15* [0.147, 0.152]	4.03
1a	2226.69	850	0.94	0.95	0.06* [0.057, 0.063]	1.62
1b	2139.60	809	0.95	0.95	0.06* [0.057, 0.063]	1.60

* $p < 0.05$

χ^2 , chi-square statistic; df , degrees of freedom; TLI, Tucker-Lewis Index; CFI, Comparative Fit Index; RMSEA, root mean square error of approximation; WRMR, weighted root mean square residual; AIC, Akaike Information Criterion; BIC, Bayes Information Criterion,

The analysis continued in an exploratory mode to improve the fit of the selected model. One item measuring optimism, Item C20 (“If something can go wrong for me work-wise, it will”) was removed because of its high residual variance (Estimate = 0.10, SE = 0.01, Estimate/SE = 164.53 and $p = 0.00$) and low R^2 value (Estimate = 0.00, SE = 0.01, Estimate/SE = 0.52 and $p = 0.60$). The fit statistics for the revised model (model 1a) showed that the model fit improved: $\chi^2 = 2226.69$, $df = 850$; TLI = 0.94, CFI = 0.95, RMSEA = 90% CIs [0.057, 0.063] and WRMR = 1.62. Refining this model further, an additional item measuring resilience, Item C13 (“When I have a setback at work, I have trouble recovering from it, moving on.”) was also removed due to the same reason of high residual variance. The fit statistics for the revised model (model 1b) showed that the model fit improved significantly: $\chi^2 = 2139.60$, $df = 809$; TLI = 0.95, CFI = 0.95, RMSEA = 90% CIs [0.057, 0.063] and WRMR = 1.60. The standardised regression coefficients were all statistically significant and varied from 0.30 to 0.91.

Descriptive Statistics, Reliabilities and Correlations

Table 3 reports the descriptive statistics, reliabilities and correlations of psychological capital, supportive organisational climate, and individual performance.

Table 3

Descriptive Statistics, Reliability Coefficients and Correlations of the Scales (N = 452)

Variable	Mean	SD	ρ	1	2	3	4	5	6	7
11. Self-efficacy	5.05	0.70	0.84	-	-	-	-	-	-	-
12. Hope	3.94	0.69	0.81	0.76**	-	-	-	-	-	-
13. Resilience	4.89	0.60	0.63	0.47**	0.59**	-	-	-	-	-
14. Optimism	4.64	0.68	0.65	0.66**	0.83**	0.51**	-	-	-	-
15. Managerial climate	3.85	1.18	0.94	0.33**	0.42**	0.26**	0.37**	-	-	-
16. Employee climate	3.92	1.10	0.88	0.33**	0.42**	0.26**	0.36**	0.75**	-	-
17. Departmental climate	4.25	1.10	0.86	0.34**	0.43**	0.27**	0.38**	0.77*	0.77**	-
18. Performance	8.43	1.12	0.86	0.33**	0.42**	0.36**	0.36**	0.01	0.01	0.01

* $p < 0.05$; ** $p < 0.01$

Table 3 shows scale reliabilities ranging from 0.63 to 0.94, which indicate acceptable internal consistency (Wang & Wang, 2012).

The correlations in Table 3 reveal that self-efficacy was positively related to managerial climate, employee climate, departmental climate, and performance (all medium effects). Table 3 further shows that hope was positively related to managerial climate, employee climate, departmental climate, and performance (all medium effects). Resilience was positively related to performance (medium effect). Table 3 also reveals that optimism was positively related to managerial climate, employee climate, departmental climate, and performance (all medium effects). These correlations support the acceptance of the first two hypotheses.

Multilevel Analyses

Next, multilevel analyses were conducted. The parameters of multilevel regression models are estimated using regression coefficients and the variance components. A multilevel regression analysis with a robust maximum likelihood (MLR) estimator was used. Table 4 presents the parameter estimates and standard errors for the different models. The models with a lower deviance fit better than models with a higher deviance.

Table 4

Models of Individual Performance

Model	M0: Intercept only	M1: One-way Random Effects	M2: Means as Outcomes	M3: Intercepts and Slopes as Outcomes	M4: Cross-level interaction
Fixed part	Coefficient (SE.)	Coefficient (SE.)	Coefficient (SE.)	Coefficient (SE.)	Coefficient (SE.)
Intercept	-0.01 (0.06)	-0.01 (0.06)	-0.01 (0.06)	-0.03 (0.06)	-0.03 (0.07)
Psychological capital (Psyscap)		0.79 (0.07)**		0.88 (0.12)**	0.88 (0.13)**
Organisational climate (OC)			-0.12 (0.13)*	-0.42 (0.25)	-0.41 (0.28)
Psyscap x OC					-0.04 (0.31)
Random part					
σ^2e	0.58 (0.03)**	0.45 (0.03)**	0.58 (0.03)**	0.44 (0.04)**	0.44 (0.04)**
σ^2u0	0.03 (0.01)	0.03 (0.01)	0.03 (0.01)	0.01 (0.03)	0.01 (0.03)
σ^2u1				0.02 (0.08)	0.02 (0.08)

Deviance	1048.30	935.24	1047.66	925.64	933.20
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* $p < 0.05$; ** $p < 0.01$

σ_e^2 - employee-level residual errors; σ_{u0}^2 - organisations-level residual errors

The intra-class correlation was 0.06. Table 4 shows that individual performance is significantly predicted by psychological capital (beta = 0.79, SE = 0.03; $\beta = 0.48$, SE = 0.04, $p < 0.0001$). Psychological capital explained 23% of the total variance in individual performance. Table 4 also shows that individual performance is not significantly predicted by organisational climate (beta = -0.12, SE = 0.13; $\beta = 0.26$, SE = 0.28, $p < 0.05$). Organisational climate explained 7% of the variance in individual performance, but the prediction was not significant.

The second model in Table 4 includes psychological capital on an individual level as an explanatory variable. The regression coefficient of psychological capital is significant. Hypotheses 3 and 4 are accepted. The third model in Table 4 includes organisational climate on group level as explanatory variable. The regression coefficient of organisational climate is not statistically significant. Hypothesis 5 is rejected. The fourth model showed that psychological capital on individual level, and organisational climate on group level were entered into the analysis, the latter variable was not statistically significant.

Table 5 presents the parameter estimates and standard errors for the model to predict organisational performance (as evaluated by experts).

Table 5

Models of Organisational Performance

Model	M1: One-way Random Effects
Fixed part	Coefficient (SE.)
Intercept	51.71 (2.12)
Psychological capital (Level 1)	0.01 (0.04)
Individual performance (Level 1)	0.00 (0.06)
Psychological capital (Level 2)	-26.99 (16.79)
Individual performance (Level 2)	-12.12 (16.39)
Random part	
σ^2_{e1} (Level 1)	0.20 (0.02)**
σ^2_{e2} (Level 1)	0.58 (0.03)**
σ^2_o (Level 2)	73.52 (26.84)**
σ^2_{u0} (Level 2)	0.02 (0.01)
σ^2_{u1} (Level 2)	0.04 (0.01)*
Deviance	1768.42

* $p < 0.05$; ** $p < 0.01$

σ^2_e - employee-level residual errors; σ^2_{u0} - organisations-level residual errors

The intraclass correlations for psychological capital and individual performance were 0.09 and 0.06 respectively. However, Table 6 showed that the regression coefficients of psychological capital and individual performance were not significant. Therefore, these two individual-level variables did not predict performance on an organisational level. Hypothesis 6 is rejected.

Discussion

This study aimed to investigate the relations among psychological capital, supportive organisational climate and performance on individual and organisational levels in state-owned enterprises in Namibia. The results showed that psychological capital was positively related to job performance and supportive organisational climate. The study further confirmed a positive relation between supportive organisational climate and job performance. However, the study could not find a significant relationship between psychological capital, supportive organisational climate and organisational performance on an organisational level.

The structural model confirmed that individual performance is significantly predicted by psychological capital. This finding supports the conclusion by other researchers who found a significant relationship between psychological capital and job performance (Avey et al., 2010; Luthans et al., 2007; Sampath Kappagoda et al., 2014; Youssef & Luthans, 2007). This finding implies that the higher the levels of performance displayed by employees, the higher the levels of psychological capital that employees will show. When employees accomplish more in their work, they tend to become more positive and through positivity, employees establish psychological resources that enable them to adapt to the challenges in their work (Bitmiş & Ergeneli, 2013).

The results of the study further showed a positive and significant relation between psychological capital and supportive organisational climate. These results upheld the findings by other researchers (Erdem et al., 2015; Luthans et al., 2008), who concluded that psychological capital plays a mediating role between supportive organisational climate and employee outcomes (Luthans et al., 2008). A supportive climate provides the environment in which psychological capital can flourish. In a supportive climate, employees get a sense of being supported and they tend to utilise their psychological capital resources such as hope, resilience, optimism and self-efficacy to achieve their tasks in a given organisational context (Luthans et al., 2008). In the absence of a supportive organisational climate, employees may experience lack of self-confidence and may feel ill prepared to accomplish their objectives. Without a supportive organisational climate, employees may feel hopeless, helpless and less optimistic to achieve their business objectives (Erdem et al., 2015). Therefore employees' perceptions about the support they receive from management, fellow colleagues and departments increase their levels of psychological capital. Psychological capital and supportive organisational climate are therefore needed for organisations to achieve growth and be sustainable.

Another finding of this study was that supportive organisational climate was positively related to performance on an individual level. Other researchers found similar findings that imply a positive relation between supportive organisational climate and performance (Bowen & Ostroff, 2004; Ferris et al., 1998; Rogg et al., 2001). Supportive organisational climate refers to the overall amount of perceived support employees receive from their supervisors, their peers and other departments. Employees consider this support as important and help them to successfully perform their work duties (Luthans et al., 2008). Researchers argue that the

organisational practices and systems that motivate employees to adopt desired attitudes and behaviours with the intention to help organisations achieve the organisation's strategic goals have an impact on performance (Bowen & Ostroff, 2004). Therefore despite some researchers who found an inconsistent relation between supportive organisational climate and performance (Becker & Gerhart, 1996; Delaney & Huselid, 1996), the finding of this study was supported by past research which established the relationship between the amount of organizational support that one perceives and their commitment to that organization (Luthans et al., 2008).

The study could not find a significant relation between psychological capital, supportive organisational climate and organisational performance on an organisational level. Other researchers concluded that psychological capital improves organisational performance, increase revenue and create competitive advantage for organisations (Luthans et al., 2007, Wright, 2003) and that supportive organisational climate is positively related to organisational performance. This study, however could not find any evidence to support the relation between organisational performance and psychological capital and supportive organisational climate on an organisational level. Different factors might have contributed to this situation. First, the size of the sample might have affected both the estimates and standard errors of the intercepts and random slopes due to the low number of groups of organisations that took part in the research. Second, the research environment through which the study was conducted might have contributed to different results. There is therefore a need to conduct further research to explore more on the non-existence of such relationship despite the findings of other research.

Limitations of the Study

The results of this study need to be interpreted with caution and with the following limitations. First, the outcome of the study is not applicable to all employees in state-owned enterprises because it was only administered with a small sample in Namibia. The respondents could be biased to portray a positive picture for their organisations. As stated earlier, the study did not find a relationship between supportive organisational climate and performance, as found by other researchers. The study needs to be replicated in different settings and with different research instruments to validate the findings. The sample size at the number of group level was relatively low. The negative impact of the small sample size in terms of the number of the groups decreases the power to identify and confirm some of the relationships that were hypothesized. Moineddin, Matheson, and Glazier (2007) recommend that a minimum group

size of 50 and a minimum of 50 groups are required to yield acceptable and valid estimates in a multilevel analysis approach. It is therefore recommended that for future studies, the collection of data should be from large number of groups to ensure powerful analyses data that detect the required effects and produce the anticipated results.

Recommendations

There is a need to make use of psychological capital and its four components in organisations as a tool to improve positivity of employees and enhance their performance. Increasing psychological capital of employees will influence their attitudes towards their performance. Psychological capital should be integrated in training and development programmes, whereby the training courses are aimed at providing more information about hope, optimism, efficacy and resilience to managers, supervisors and other employees in order to face the challenges that are encountered in the workplace. Executive and senior managers should complete development programmes centred on psychological capital as a competitive advantage that can assist them to achieve their strategic goals and objectives of their organisations. These training and development programmes should be based on cognitive-behavioural approaches to instil a sense of hope, learned optimism, resilience and self-efficacy among the leaders and their followers to enhance performance (Avey et al., 2009). During recruitment process, shortlisted candidates should be screened on psychological capital. Among other requirements, those candidates who display high levels of psychological capital should be more highly considered than those who display low levels of psychological capital.

The study could not explain the impact of psychological capital and supportive organisational climate on organisational performance. Future research should examine the contribution of psychological capital and supportive climate on organisational performance. There is also a need to complement the quantitative research on psychological capital with the qualitative data such as focus groups to examine the impact it has on the organisational level. A longitudinal research design on psychological capital is required to analyse more complicated relationships especially on multilevel in order to improve our understanding of the influences between psychological capital and its outcomes.

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CHAPTER 5

CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter links the conclusions from the three manuscripts that make up this study. The chapter further revisits the aim and draws conclusions from the study. Limitations will be highlighted and recommendations will be proposed regarding psychological capital, its measurement, antecedents and outcomes in state-owned enterprises. Suggestions for future research, and the study's contribution towards scholarship in Industrial and Organisational Psychology will also be given.

5.2 Research aim reconsidered

The general aim of this study was to investigate the measurement, antecedents and outcomes of psychological capital among employees and organisations in state-owned enterprises and to explore its impact on employees' outcomes such as job satisfaction, work engagement, turnover intention and performance. This aim was addressed by three sub-aims that resulted in three manuscripts as follows:

- Manuscript 1: Authentic leadership, psychological capital, job satisfaction and intention to leave in state-owned enterprises.
- Manuscript 2: Authentic leadership, psychological capital, organisational climate and work engagement.
- Manuscript 3: Psychological capital, supportive organisational climate and performance within state owned enterprises.

5.3 Conclusions emanating from the study

Various conclusions can be drawn, based on the results of this study.

5.3.1 Manuscript 1: Authentic leadership, psychological capital, job satisfaction and intention to leave in state-owned enterprises

The first aim of this study was to investigate the relations among authentic leadership, psychological capital, job satisfaction and intention to leave in Namibian state-owned enterprises.

Psychological capital is an individual's positive psychological state of development characterised by the confidence a person may have in addressing the challenging tasks (self-efficacy), the positive attribution to succeed in life (optimism), determination in achieving goals in life (hope) and the ability to bounce back when facing the challenges of life in order to succeed (resilience) (Luthans, Youssef, & Avolio, 2007). Psychological capital draws its foundation and explanatory mechanisms from theories of work motivation (Stajkovic, 2006), positive psychology (Lopez & Snyder, 2009), and Bandura's social cognition (1986, 1997), and agentic (2008) theories. Based on these theories, psychological capital has been defined as a construct consisting of four positive psychological resources, namely self-efficacy, optimism, hope, and resilience.

Authentic leadership is defined as "a process that draws from both positive psychological capacities and a highly developed organizational context, which results in both greater self-awareness and self-regulated positive behaviours on the part of leaders and associates, fostering positive self-development" (Luthans & Avolio, 2003, p. 243). Authentic leadership has four components, namely self-awareness, internalised moral perspective, balanced processing and relational transparency (Illies, Mogeson, & Nahrgang 2005; Zamahani, Ghorbani, & Rezaei, 2011). Authentic leaders are transparent in revealing their expressions to their followers (Mazutis & Slawinski, 2008).

Job satisfaction indicates the degree to which an employee has a positive attitude and emotional state regarding the appraisal of his or her current job situation (Landy & Conte, 2010). Job satisfaction has been linked to customer satisfaction, productivity, profit, commitment, identification with an organisation, and employees' intention to leave (Harter, Schmidt, & Hayes, 2002; Russell et al., 2004).

Intention to leave refers to the wilful and deliberate intent of an employee to resign from an organisation (Tett & Meyer, 1993). Intention to leave is the last step before considering actually leaving the organisation (Mobley, 1977). A high turnover rate of staff might impact negatively the knowledge base of state-owned enterprises (Coff, 1997). When organisations lose their productive employees, organisational performance will be negatively affected (Leopold, Ellis, & Valle, 2013).

The literature on authentic leadership, psychological capital, job satisfaction and intention to leave illustrated different possible relations. Authentic leadership draws from positive psychological capacities and is expected to contribute to psychological capital (Luthans & Avolio, 2003). Psychological capital was found to be related to job satisfaction with the correlation ranging between 0.32 and 0.53 (Larson & Luthans, 2006; Luthans et al., 2008). Employees who reported high psychological capital were found to have lower intentions to leave their jobs and organisations (Barkhuizen, Rothmann, & Van de Vijver, 2014). Similarly, employees measuring high on psychological capital are also more satisfied with their jobs; they are less inclined to quit their jobs.

The results of the study found a positive relation between authentic leadership and psychological capital and between authentic leadership and job satisfaction. It also discovered that authentic leadership was negatively associated with intention to leave. Authentic leadership impacted psychological capital and job satisfaction directly and positively, although the effect sizes were medium to small. Psychological capital had a large direct effect on job satisfaction, which, in turn, affected intention to leave directly and negatively. The influence of job dissatisfaction on intention to leave compared well with low psychological capital. Job dissatisfaction indirectly impacted the relationship between low authentic leadership and intention to leave.

The positive relationship between authentic leadership and psychological capital implied that the more employees feel that their supervisors display the qualities and characteristics of authentic leadership, the more they were hopeful, optimistic, confident and resilient in their work. Leaders, who demonstrate the positive qualities of authentic leadership and who are aware how these qualities impact the wellbeing of their followers, tend to accept both positive and negative feedback positively, align their values with their intentions and actions and

contribute to the development of psychological capital of their employees (Zamahani et al., 2011).

A strong relationship was found between psychological capital and job satisfaction. Employees with higher levels of psychological capital are more satisfied with their jobs than employees with lower levels of psychological capital (Zamahani et al., 2011). It is the sufficient willpower and pathways (hope) that they have that enable them to make the best of their work situations and feel satisfied with their jobs (Avey et al., 2010). Furthermore, when they attribute outcomes of positive events to internal, stable efforts, or causes, and attribute outcomes of negative events to unstable, external events which they are unable to avoid (optimism), they are more satisfied with their jobs (Seligman, 1998). Their adaptation processes to bounce back when they faced challenges in their workplace (resilience) and confidence that they have when they feel competent at work both contribute to job satisfaction (Rothmann, 2001).

The study explored both the direct and indirect effects of authentic leadership and psychological capital on job satisfaction and intention to leave. The direct effects association included paths from authentic leadership and psychological capital to job satisfaction and intention to leave, while the path from authentic leadership is constrained to zero. The indirect effects encompassed the path from authentic leadership to job satisfaction via psychological capital while the path from authentic leadership to job satisfaction was constrained to zero. For direct effects, the study concluded that when predicting job satisfaction, authentic leadership and psychological capital had a large effect of the variance in job satisfaction. In predicting intention to leave, job satisfaction had a large negative effect. Regarding indirect effect of authentic leadership and psychological capital, the study established that psychological capital had a significant indirect effect on intention to leave via job satisfaction; authentic leadership did not affect intention to leave indirectly via psychological capital; and that authentic leadership effected intention to leave via job satisfaction. These results regarding direct and indirect association of authentic leadership and job satisfaction and outcomes confirmed the findings of previous studies which claimed that psychological capital is an instrument through which authentic leadership affect outcomes such as job satisfaction and intention to leave (Woolley, Caza & Levy, 2011; Zamahani, et al., 2011). With psychological capital having an impact on intention to leave indirectly via job satisfaction, employees with higher scores on psychological capital were less inclined to consider leaving their organisations because they were more satisfied with their jobs (Diederiks & Rothmann, 2014; Tett & Meyer, 1993).

5.3.2 Manuscript 2: Authentic leadership, psychological capital, organisational climate and work engagement

The second aim of this study was to investigate the relations among authentic leadership, psychological capital, supportive organisational climate and work engagement in state – owned enterprises. The study also aimed at establishing whether psychological capital mediates the relation between authentic leadership and work engagement, and if supportive organisational climate predicts work engagement.

Work engagement refers to individuals' relationship with their jobs as well as with their organisations (Schaufeli, 2014). Work engagement is defined as the “harnessing of organizational members' selves to their work role by which they employ and express themselves physically, cognitively and emotionally during role performance” (Kahn, 1990, p. 694). People can use varying degrees of their selves physically, cognitively, and emotionally in the work they perform (Kahn, 1990). Work engagement comprises three dimensions, namely physical, cognitive and emotional engagement (Macey & Schneider, 2008).

Psychological capital is a person's positive psychological state of development and is characterised by four components, namely self-efficacy, optimism, hope and resiliency (Luthans et al., 2007). Authentic leadership is a high-order core construct composed of four related components, namely, internalised moral perspective, self-awareness, relational transparency and balanced processing (Luthans et al., 2007).

Supportive organisational climate is defined as “the overall amount of perceived support employees received from their immediate peers, other departments, and their supervisor that they view as helping them to perform their work duties” (Luthans, Norman et al., 2008, p. 225). A supportive organisational climate refers to the perceived support employees feel they receive from their leaders and colleagues that help them to perform their work duties successfully (Luthans et al., 2008). This perceived supportive climate relates to desired outcomes such as work engagement (Luthans et al., 2008). A supportive context is needed for human resources to achieve sustainable growth and performance.

Several researchers attempted to link authentic leadership with positive organisational behaviour (Luthans & Avolio, 2009; Yammarino, Dionne, Schriesheim, & Dansereau, 2008),

and work engagement (Alok & Israel, 2012; Hassan & Ahmed, 2011). Research provides evidence that authentic leadership and work engagement are related (Gardner, Avolio, Luthans, May, & Walumbwa, 2005). Authentic leaders foster positive organisational climates that are moral, communicative and supportive (Woolley et al., 2011). These positive organisational climates affect psychological capital of employees (Luthans & Avolio, 2003).

The results of the study indicated that psychological capital was significantly related to authentic leadership, supportive organisational climate and work engagement (on an individual level). The study also found a significant relation between authentic leadership and supportive organisational climate and between authentic leadership and work engagement. Supportive organisational climate was significantly related to work engagement.

The relationship between psychological capital and work engagement implies that the higher the level of psychological capital of employees, the more engaged they become to their work and organisations. They tend to perceive themselves and be perceived by others as highly engaged to their work. They are likely to accomplish their duties well. This finding supports and confirms the earlier findings by other researchers who concluded that psychological capital plays a vital role in enhancing work engagement (Simonis & Buitendach, 2013; Siu, Bakker, & Jiang, 2013). Employees with high levels of psychological capital tend to possess trust and confidence in performing their tasks, feeling safe in pursuing their roles and availing themselves to performing roles (Kahn, 1990).

The study showed a positive relationship between supportive organisational climate and work engagement. This relationship implies that when employees perceive that the climate within they are working is supportive, they tend to be more engaged with their work. The result of this research confirmed the findings of Luthans et al. (2008), which showed that the perceived supportive climate relates well to the desired employees outcomes such as work engagement.

Multilevel analyses were performed with individual scores nested within organisations. The multilevel analyses determined the relation between different variables on both the individual and organisation level. Researchers have shown that a supportive organisational climate is positively correlated to work engagement (Luthans et al., 2008), that psychological capital is related to work engagement (Simonis & Buitendach, 2013; Siu et al., 2009); and that authentic leadership leads to work engagement (Porath, 2014; Wang & Hsieh, 2013). This study

established that when authentic leadership and psychological capital were entered on an individual level, and organisational climate on a group level was entered into the analysis, the latter variable was not statistically significant. The results showed that these relations did not exist on an organisational level. Factors such as the sample size on the group level that was relatively small, and the limited number of organisations that took part in the study, might have affected these relations.

5.3.3 Manuscript 3: Psychological capital, supportive organisational climate and performance within state-owned enterprises

The third component of this study operationalised the concepts and searched possible relations among psychological capital, supportive organisational climate and performance. The aim of this study was to investigate the relations among psychological capital, supportive organisational climate, individual and organisational performance in state-owned enterprises.

Psychological capital is conceptualised as “an individual’s positive psychological state of development characterised by: (1) having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks; (2) making a positive attribution (optimism) about succeeding now and in the future; (3) persevering toward 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 (resiliency) to attain success” (Luthans et al., 2007, p. 3). The four components of psychological capital are hope, resiliency, optimism and self-efficacy. Organisational climate is defined as “a shared perception of what the organisation is like in terms of practices, policies, procedures, routines, and rewards – what is important and what behaviours are expected and rewarded – and is based on shared perceptions among employees within formal organisational units” (Bowen & Ostroff, 2004, p. 205).

Performance comprises of observable behaviours that employees display in their work (Campbell, McCloy, Oppler, & Sager, 1993). Job performance is a set of work related behaviours that organisations expect from employees to display (Moorhead, & Griffin, 1999). Performance refers to the activities or observable behaviours that employees do in their work that are relevant to the goals and objectives of an organisation (Campbell et al., 1993; Motowidlo, Borman, & Schmit, 1997). Job performance can be described as the quality and

quantity of human output that is necessary to meet work goals and the standards that are required to do a specific job (Ivancevich & Matheson, 1996). The two dimensions of job performance are task performance and contextual performance (Borman & Motowidlo, 1993).

Organisational performance is defined as “the extent to which organisations, viewed as a social system fulfilled their objectives” (Georopoulos & Tannenbaum, 1957). Organisations compete with one another and organisational performance can be determined through performance ranking to determine the performance advantage (March & Sutton, 1997). The organisational factors that were considered to compare organisations and determine performance are namely: adaptability to change - the ability of the organisations to adapt to change (Milliken, 1990); organisational leadership – the ability of the organisations to provide leadership to their workforce (Chathoth & Olsen, 2002; Olsen, West, & Tse, 1998); organisational success – the perceived perception for the organisation’s ability to succeed (past, present and in future) (Indermun & Saheedbayat, 2013); and corporate social responsibility (CSR) – the perceived perception of the organisations’ programmes for corporate social responsibility (Siddiq & Javed, 2014).

The results of this study showed evidence that psychological capital was positively related to job performance. However it could not find a significant relation between psychological capital, supportive organisational climate and organisational performance on an organisational level.

The study established that job performance was significantly predicted by psychological capital. This finding supports the conclusion by other researchers who found a significant relationship between psychological capital and job performance (Avey et al., 2010; Luthans et al., 2007; Sampath Kappagoda et al., 2014; Youssef & Luthans, 2007). This finding implies that the higher the levels of performance demonstrated by employees, the higher the levels of psychological capital that employees will show. When employees accomplish more in their work, they tend to become more positive and through positivity, employees establish psychological resources that enable them to adapt to the challenges in their work (Bitmiş & Ergeneli, 2013).

The study found a positive and significant relation between psychological capital and supportive organisational climate. These results supported the findings by other researchers

(Erdem, Gökmen, & Türen, 2015; Luthans et al., 2008), who concluded that psychological capital plays a mediating role between supportive organisational climate and employee outcomes. A supportive climate provides the environment in which psychological capital can flourish.

In a multilevel analysis of the study, a supportive organisational climate was found to be positively related to performance on an individual level, confirming the findings of other researchers who found similar findings that imply a positive relation between supportive organisational climate and performance (Bowen & Ostroff, 2004; Ferris et al., 1998; Rogg et al., 2001). The study however could not find a significant relation between psychological capital, supportive organisational climate and organisational performance on an organisational level. Although other researchers concluded that psychological capital improves organisational performance (Luthans et al., 2007, Wright, 2003) and that supportive organisational climate is positively related to organisational performance, this study did not find similar findings. The size of the sample and the research environment in which the study was conducted might have contributed to these relations.

5.4 Limitations

Although the study produced an expanded understanding of psychological capital, its measurement, antecedents and outcomes in state-owned enterprises, the results of this study needs to be interpreted with some attentiveness and with the following limitations.

First, the research design was cross-sectional. As a result, all the questionnaires used in the study were self-report measures. There was a possibility of common method variance (Richardson, Simmering, & Sturman, 2009). Doty and Glick (1998), and Johnson, Rosen, and Djurdjevic (2011) stated that common method variance is rarely strong enough to invalidate findings. In future studies, multi-source data such as in-depth interviews and objective ratings should be considered.

The second limitation of this study is common method bias. This bias refers to the inflated relations when research participants are responding to questionnaire instruments that had been validated in previous research (Avey, Luthans, & Jensen, 2009). This limitation generates a concern of artificially increased relations especially to paint positive pictures for their

organisations. As a remedy to address this limitation, future studies should conduct multi method studies, whereby research participants are measured on multiple constructs using different methods and instruments (Doty & Glick, 1998).

The third limitation is that the study does not allow for interpretations of causality of relations between the variables. Although the study confirmed several relationships between different variables, by no means is the study implying a causal inference between different variables. Therefore, the possibility of alternative hypotheses cannot be ruled out of this study.

The fourth limitation is the size of the non-probability, convenient sample that was used which was relatively small at both individual and organisational levels. Therefore the findings from this study cannot be used alone to generalise the outcomes to the entire population.

These limitations are rarely strong enough to invalidate the overall findings of the study. The study is a first in the African context, which explored psychological capital, its antecedents and outcomes in a state-owned enterprises environment. The study responded to the call by Luthans (2012) who expressed the need for information regarding the relation between psychological capital and its possible antecedents in a multilevel design which includes both individual and organisational levels. Multilevel modelling allows the researcher to consider both the individual and organisational levels of the hierarchical structured data simultaneously (Byrne, 2012; Hox, 2010). The study employed the multilevel analyses approach to assess variance within and between groups. It uses structural equation modelling to counter weaknesses of statistics in previous studies.

5.5 Recommendations

5.5.1 Recommendations to solve the research problems

To solve the research problem of assessing and measuring the relation between psychological capital, its antecedents and outcomes, the following recommendations are made:

- The study confirmed the findings of other studies that found that authentic leadership and psychological capital play an important role in job satisfaction and intention to

leave among employees in state-owned enterprises. Therefore the state-owned enterprises should conduct surveys to assess authentic leadership, psychological capital, job satisfaction and intention to leave among employees. The outcomes of these surveys should be integrated in leadership development and culture change programmes, in order to enhance positive employee outcomes such as job satisfaction and low intention to leave.

- Psychological capital can be measured and developed. Therefore it should be integrated in different human resource programmes, such as recruitment and selection, and wellness programmes in order for the organisations to manage and retain talent. Given that psychological capital can be developed, training and development interventions which utilise cognitive-behavioural approaches should be implemented to promote hope, learned optimism, resilience and self-efficacy (Avey et al., 2009). Developing psychological capital in employees would enhance their level of engagement and encourage other positive outcomes such as work performance (Luthans et al., 2007).
- Managers and supervisors should be trained in authentic leadership to develop their skills and capacities in leading their followers authentically. Management should be held accountable for engagement of employees in their organisations, since they have a significant role to play in contributing to employee engagement through the type of leadership they display. This can be done by including employee engagement in their performance reviews.
- The state-owned enterprises should consider authentic leadership and psychological capital as pathways to experiences of quality of life and retention of talented staff. Being authentic implies that leaders build credibility and earn the trust and respect of employees by acting in accordance with personal values (Avolio et al., 2004). Leaders that are aware of their personal characteristics and the impact of their leadership on others are able to pay attention to both positive and negative interpretations about themselves and their leadership style. They are consistent and transparent, and contribute to hope, optimism, self-efficacy and resilience of their subordinates (Zamahani et al., 2011).

5.5.2 Recommendations for future research

The following recommendations are made for future research:

- The results of this study support the important role of authentic leadership and psychological capital in explaining employee outcomes such as job satisfaction and intention to leave. Although this study confirmed that authentic leadership affects psychological capital, the effect was moderate. More research is needed to identify other antecedents of psychological capital.
- A need exists to conduct more research regarding authentic leadership and psychological capital to facilitate a better understanding of these constructs within African contexts.
- There is a need for a longitudinal study to be conducted on psychological capital and its antecedents and outcomes in order to enhance a body of knowledge of the research on positive organisational behaviour.
- There is also a need to improve the findings of this study by using a bigger sample and by exploring multi-level analysis of these concepts in order to contribute to the future research on work engagement, authentic leadership and psychological capital. The field of positive psychology from which these concepts emerged is relatively new compared to other fields of psychology (Peterson, 2000). Studies have just begun to expand psychological capital into other units of analysis, alternative measures, and domains of application (Luthans, 2012). Information is needed regarding the relation between psychological capital and its possible antecedents in a multilevel design which includes both individual and organisational levels (Luthans, 2012).

5.6 Contribution of the study to knowledge in Industrial/Organisational Psychology

The study contributes towards the knowledge in Industrial /Organisational Psychology in the following manner:

This is the first study that investigated the measurement of psychological capital, antecedents and outcomes in state-owned enterprises in Namibia. The study has confirmed the findings of different studies that were conducted elsewhere in the world which found a positive relation between psychological capital and antecedents such as authentic leadership and the supportive organisational climate. This finding implies that in order for psychological capital to exist, certain factors such as authentic leadership and a conducive supportive climate as perceived by employees should prevail. This study further confirmed the findings that psychological capital is positively related to employee outcomes such as job satisfaction and intention to leave. The findings of similar studies that were conducted in other countries have been confirmed in the Namibian study. These findings are more or less the same despite different cultural factors that have affected the research environments in different countries.

Leadership is considered as a second area in Industrial and Organisational Psychology where the roots grew in general psychology (Strümpfer, 2007). This study has explored and contributed to the body of knowledge in leadership. The study probed authentic leadership as one of the antecedents or the enabler that must be present for psychological capital to be able to influence employee outcomes such as job satisfaction, work engagement, turnover intention and the ultimate performance.

The study has also contributed to the debate of psychological assessment within the discipline of Industrial and Organisational Psychology. Psychological assessment is a concept and an activity; in addition, its roots are more inclined to Industrial and Organisational Psychology than General Psychology (Strümpfer, 2007). Research has confirmed the psychometric properties of psychological capital as a psychological construct, is “state –like,” in the sense that it is malleable, can be measured and developed, unlike ‘states’ and traits (Luthans, Avolio, Avey, & Norman, 2007). The recommendation to include psychological capital in the assessment programmes of the organisations either for recruitment and selection or developmental purposes will contribute significantly to the area of psychological assessment.

Assessing the positive ‘state-like’ properties such as hope, resilience, optimism, and self-efficacy will enhance a better understanding of a psychological construct that has not yet been investigated widely in psychology.

The study attempted to respond to a call for research to study organisational phenomena using quantitative research designs to discover a better understanding of already established psychological constructs (Rothmann & Cilliers, 2007). By investigating the relations between psychological capital and its antecedents such as authentic leadership and supportive organisational climate, as well as how psychological capital is related to employee outcomes such as job satisfaction, work engagement, performance and intention to leave, the study has indeed contributed to the primary task of Industrial and Organisational Psychology. This refers to the application of psychological principles and research to workplace phenomena (Rothmann & Cilliers, 2007).

With specific reference to psychological capital, which was at the centre of the study, this study has facilitated the understanding of the subjective well-being which is the main focus of positive psychology (Seligman, 2002). Positive psychology is getting more recognition in Industrial and Organisational Psychology (Snyder & Lopez, 2002; Wright, 2003), which at the subjective level is about valued experiences such as well-being, contentment, and satisfaction, hope and optimism, and flow and happiness (Seligman & Csikszentmihalyi, 2000). The study therefore attempted to find out what works better for state-owned enterprises by using a positive psychological capital to contribute to the development and management of human resources in a workplace.

The study has also contributed to the confirmation of the theory and research behind the concepts namely: psychological capital, supportive organisational climate, job satisfaction, work engagement, turnover intention and performance. The insights derived from the findings of this study can be used by academia and researchers in the field of Industrial and Organisational Psychology to plan future research directions. Such research directions should take cognisance of the challenge for Industrial and Organisational Psychology research to remain relevant, needs-driven and problem solving-orientated.

The study has also contributed to the understanding of psychological capital, its relation between its antecedents and employee outcomes, including organisational performance, by

utilising the multilevel analysis approach. This analytical approach extends the contribution of the study to Industrial/Organisational Psychology by enhancing the understanding of the relation between different psychological variables and constructs on both individual and organisational levels.

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