THE ROLE OF CHANGE-ORIENTED LEADERSHIP
IN A SELECTED SOUTH AFRICAN ORGANISATION

NADINE SHA

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Supervisors:
Dr M. du Plessis
Prof F. Abrahams
THE ROLE OF CHANGE-ORIENTED LEADERSHIP
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Nadine Sha

KEYWORDS

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Modern day leaders are faced with a complex globalised environment that has resulted in intense competition, ever-changing government rules and regulations, stakeholder demands, environmental policies and much more. In order to not only survive but thrive, they need to lead and motivate a diversified group of employees with different economic, cultural, and socio-political values. Today's leaders need to develop effective managerial strategies, learn to inspire those both inside and outside of the organisation, and guide change.

This study aimed to provide insight into change-oriented leadership and examine its effect on psychological capital (PsyCap) and psychological empowerment as antecedents of work engagement and change-oriented organisational citizenship behaviour (change-oriented OCB).

For purposes of this study, a quantitative research design was employed using both paper and pencil and electronic questionnaires. Data was gathered by using a probability sample of employees within a manufacturing organisation in South Africa (N = 736). The measurement instruments were revalidated for the South African sample through both confirmatory factor analysis (CFA) and partial least squares structural equation modelling (PLS-SEM). All the measuring instruments retained its original factor structures and reported acceptable reliabilities of change-oriented leadership (α = .908), PsyCap (α = .848), psychological empowerment (α = .860), work engagement (α = .883) and change-oriented OCB (α = .897).

Spearman’s rank correlation coefficient was used to evaluate the relationships between the variables. CFA and goodness-of-fit for the measuring instruments.
were performed with Mplus, version 7. Additionally, structural equational modelling (SEM) using partial least squares (PLS) path modelling was performed using SmartPLS. The findings reported that change-oriented leadership was significantly related to psychological empowerment, PsyCap, work engagement, and change-oriented OCB. Furthermore, PsyCap and psychological empowerment was found to have an indirect effect on the relationship between change-oriented leadership and work engagement and change-oriented OCB. A theoretical model was also constructed and tested the relationship between the variables in this study. The model however, did not fit the data.

Since change is crucial for organisations to continuously grow and be highly competitive, this study has found that change-oriented leadership influenced work engagement and change-oriented OCB of employees. This implies that change-oriented leaders may be instrumental in ensuring that employees are not only engaged with their tasks, but also engaged in facilitating organisational changes. The study recommends that researchers elevate the need for change-oriented leaders and to further explore this new leadership style and the measurement of the variable.
DECLARATION

I hereby declare that “The role of change-oriented leadership in a selected South African organisation” is my own work, that it has not been submitted before for any degree or examination in any other university, and that all the sources I have used or quoted have, to the best of my knowledge, been indicated and acknowledged as complete references.

Full Name: Nadine Sha

Date: 13 December 2017

Signed..........................................................

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ACRONYMS AND ABBREVIATIONS

PCQ  Psychological Capital Questionnaire
PEQ  Psychological Empowerment Questionnaire
UWES  Utrecht Work Engagement Scale
OCB  Organisational Citizenship Behaviour
CFA  Confirmatory Factor Analysis
SEM  Structural Equation Modelling
PLS-SEM  Partial least squares structural equation modelling
CFI  Comparative fit index
NFI  Normed fit index
SRMR  Standard root mean residual
RMSEA  Root mean square error of approximation
SBX²  Satorra-Bentler scaled chi-square
df  degrees of freedom
AVE  Average variance extracted
CHAPTER 1
INTRODUCTION

1.1 INTRODUCTION

The primary aim of this study is to empirically assess and test the theoretical model determining whether change-oriented leadership in a South African context will have a significant influence on psychological empowerment and PsyCap of the respondents in the sample which, individually and combined, will explain a significant part of the variance in work engagement and change-oriented OCB.

The background below, provides context to a South African sample as well as motivation with respect to the variables to be researched in this study. The study will further explore the relationship between the variables which will be introduced and studied through various literature. Furthermore, the background will provide research objectives which directed the execution of this study and the research design will be briefly discussed. Finally, an overview of the findings and the potential advantages of this research will be identified and outlined for the remainder of the study.

1.2 BACKGROUND TO RESEARCH

Research shows that it is crucial for organisations to change in order for them to continue growing in a highly competitive business environment (Ndlovu & Parumasur, 2005; Pricewaterhouse Coopers, 2008; Stander & Rothman, 2010). Various theories of change describe the efficacy of the need to modify strategies, processes, and structures for organisations (Husain, Lei, Akram, Haider, Hussain & Ali, 2016). Studies reveal that it is employees who change within an organisation and not the organisations themselves. Therefore, employees are required to have the right knowledge, skills, and tools in order to work on new procedures and practices the organisation enforces.
(Schein, 2008; Woodman & Dewett, 2004). Raelin and Cataldo (2011) noted that the manner in which middle management participate in change has evolved over the years. The role of middle managers has changed from resistors to enablers; however, due to executive constraints these managers often remained ineffective. It is important to emphasise that during a period of change, middle managers play a critical role in modelling the system. They can also be the main source of failure should they lack the necessary empowerment to fulfil this intermediary role. Therefore, traditional managerial skills, such as finance or manufacturing expertise are important, but not sufficient for organisational transformation and sustainability (Raelin & Cataldo, 2011). The critical element is leadership; in other words, leaders who can understand and react to an increasingly competitive environment (Oppel, 2007).

During the pre-apartheid era, South African business often adopted structural models that leaned towards authoritative power and thereby left policy making in the hands of a few senior managers, usually White (Global Business Culture, 2017). It was common for middle managers to wait in line to move up the corporate ladder over time. Post-apartheid organisational structures have since largely changed with hierarchies diminishing and younger middle-managers seeking to become more proactively involved in decision-making (Global Business Culture, 2017). The biggest change which has impacted the middle management level is the influx of new African professionals (Van Rensburg, 2007). A study published in the World Competitiveness Report in 2000 reported that out of 41 countries South Africa ranked last in terms of effective human resources management. It was further found that the authoritative management structures in the South African workforce resulted in employees feeling disempowered (Albertyn, 2001). The test for modern-day South African leaders is to adapt quickly to new and very different challenges as new stages in the history of the country, society, and organisations unfold. This not only requires tactical shifts but also a re-envisioning of the future from a different platform (Van Rensburg, 2007).
Rodrik (2008) noted that South Africa has endured a significant change since the democratic transition in 1994. However, growth in both the South African economy and the creation of more employment have been somewhat disappointing (Rodrik, 2008). Nel, Stander and Latif (2015) noted that since 2012, economic growth has been slow and continues to be weak which was followed by a decline in domestic socio-economic and political conditions. The dramatic decline in the economy adversely affected the creation of jobs, thereby increasing unemployment rates and poverty (McKinsey, 2015). The economic challenges within the country place organisations under tremendous pressure to cope with large-scale change. While organisations exert efforts on competition and revenue, employees are threatened by job loss, thereby often leaving them stressed about their future (Stander & Rothmann, 2009). With this in mind, leaders are pressured and obliged to be accountable for strong and effective leadership and have a responsibility towards their employees to provide solidity, safety, meaning, and hope (Nel, Stander & Latif, 2015). On the other hand, employees need to build on their own competencies and gain new resources to be able to proactively respond to the economic challenges in the post-apartheid era (Stander & Rothmann, 2009). Employees can only deal with change when they feel psychologically empowered. Therefore, there is a need for employees to be psychologically empowered in South African organisations (Stander & Rothmann, 2009).

Bhatnagar (2005) confirms that there is a definite need for employees in South African organisations to feel empowered; however, it cannot be assumed that organisations and employees will understand and think of the term “empowerment” in precisely the same way. Stander and Rothmann (2009) wrote that there is very little research on psychological empowerment. This is a clear indication that South African employees need a better understanding of the empowered approach. Therefore, Spreitzer (2008) determined that employees are in need of a trusting and supportive relationship with leadership since this is an important contextual antecedent of psychological empowerment.
Empowerment exists in large part because of personal convictions an employee has about his/her job role within the organisation (Stander & Rothmann, 2009). Psychological empowerment refers to four psychological factors, namely: meaning, competence, self-determination, and impact, all of which potentially influence organisational behaviour (Spreitzer, 1995). Moreover, Spreitzer (1995) suggested that these four factors are considered to be psychological conditions that can lead to the engagement of employees. Studies indicate that being empowered is a moderator between empowering managerial practices and expected outcomes (engagement, organisational commitment, job performance) from empowered employees (Spreitzer, 1995; Stander & Rothmann, 2010). However, very few studies have focused on the link between psychological empowerment and work engagement in a South African framework (Stander & Rothmann, 2010).

According to psychological empowerment theory, Spreitzer (2008) maintained that employees who feel a sense of empowerment are likely to take a more proactive approach toward their work and go “above and beyond” the call of duty. Employees who experience meaning in their work and have individual circumspection are more likely to exhibit organisational citizenship behaviours (OCBs) because this promotes a feeling of association within their work environment and not just basic fulfilment of the employees’ defined job description (Spreitzer, 2008). Bandura (1997a) stated that competence and impact are likely to further enhance OCBs since employees will feel capable of achieving positive outcomes in their work unit. Although Detert and Burris (2007) found psychological empowerment mediated change-oriented OCB, and despite the numerous antecedents of OCB, very little research has been emphasised to link psychological empowerment and OCB (Alge, Ballinger, Tangirala, & Oakley, 2006; Taylor, 2013).

Avey, Wernsing and Luthans (2008) found a significant relationship between leadership, psychological capital, and feelings of empowerment. It was further found that leader PsyCap was positively related to follower PsyCap (Story, Youssef, Luthans,
Barbuto & Bovaird, 2013). Empirical evidence indicated that persistent and dependable information received from one’s leader can change one’s PsyCap, thereby suggesting that an employee’s PsyCap can be improved or reduced based on the feedback he/she would receive from the employee’s leaders, colleagues, or even the job itself (Norman, Avolio & Luthans, 2010).

PriceWaterhouse Coopers (2008) reported that the success of future organisations depends mainly on its leaders and how well they can anticipate change, exhibit leadership, capitalise on talent, and embrace social responsibility. One supposition is that an effective leader will influence employees to make self-sacrifices and exercise extraordinary effort. Though the importance of empowerment is acknowledged in various leadership studies, researchers theorise how leaders can use power and influence to overcome employee resistance and thereby support employees to collectively make improved decisions about the type of change which is required (Price Waterhouse Coopers, 2008). Ortega, Van den Bossche, Sa’nchez-Manzares, Rico and Gil (2014) stated that change-oriented leadership is pertinent for team learning processes as it leads to innovative enhancements and adaptation to external changes. Change-oriented leadership also relates to change management and the managing and transformation of organisational procedures in unsettled environments.

Given the challenges leaders face, and more particularly in the South African context, the question remains: Will leadership have an influence on employees’ outcomes such as work engagement, change-oriented OCB, psychological capital, and psychological empowerment? These variables remain independent and empirical research is limited in linking these different variables. Based on the theoretical model, the main purpose of this study is to explore research propositions and discuss possible methods for empirically testing linkages suggested by the model.
1.3 THE VARIABLES EXPLORED IN THE STUDY

In order to place the current study in context, it is necessary to be familiar with the variables of the study. These variables will be briefly discussed below.

1.3.1 Work Engagement

Jeung (2011) noted that the concept of work engagement has gained extensive popularity in both academia and in the consulting industry (Bakker & Schaufeli, 2008; Nelson & Cooper, 2007) and has become even more important in the 21st century (Bakker, 2017). Companies who want to compete successfully should not only focus on recruiting good talent, but must also encourage and empower employees to utilise their full abilities (Bakker, 2017). It is essential for modern organisations to have employees who are psychologically connected to their job, are eager to devote themselves fully to their roles, are proactive, and are dedicated to performing to the highest standards. Therefore, organisations need employees who are engaged at work (Bakker & Leiter, 2010).

Over the past two decades, research has confirmed Kahn’s (1990) definition of engagement (Bakker, 2017). Kahn (1990) coined the concept of engagement in workplace settings and defined personal engagement as:

the simultaneous employment and expression of a person’s ‘preferred self’ in task behaviours that promote connections to work and to others, personal presence (physical, cognitive, and emotional) and active, full performances (Kahn, 1990, p.700).

He noted further that engaged people ‘‘employ and express themselves physically, cognitively, and emotionally during role performances’’ and ‘‘withdraw and defend
themselves physically, cognitively, or emotionally during role performances’’ (Kahn, 1990, p. 694).

Literature has shown that engaged employees are extremely energetic and will use this energy to influence situations which may affect their lives (Bakker, 2009). Therefore, when employees’ display a positive attitude, they create positive feedback for themselves which will include an appreciation for recognition and success. Even after a long and tiring day, engaged employees often perceive the fatigue as a pleasant condition, since they see the day as a positive accomplishment. Lastly, engaged employees will also find pleasure in outside work activities, as opposed to workaholics who only find work enjoyable and thereby have the need and drive to work consistently (Gorgievski & Bakker, 2010). Jeung (2011) noted that employees will attribute an inherent value to their job function when they feel positive and engaged in their work.

Researchers in both management and industrial/organisational psychology continue to clarify the notion of engagement based on Kahn’s (1990) work (Jeung, 2011). Empirical research showed that different leadership styles including transformational, transactional, and authentic leadership were identified to be determining factors of engagement within an organisational context. Within this frame of reference, the state of feeling psychologically empowered can be related to a state of engagement. Research has also clearly shows that variables such as OCB (Organ, Podsakoff, & MacKenzie, 2006), job satisfaction, organisational commitment, job involvement, and empowerment can be a consequence of the engagement construct. However, there are very few studies which focus on the consequences of the construct (Jeung, 2011).

Although with a somewhat different conceptualization of engagement, Shuck and Herd (2012) stated that employee engagement levels of employees are decreasing and there is an intensity of disengagement among employees today. This is supported by Mann and Harter (2016) and the PDT (2015) report. Since 2003, research suggested that engagement levels among employees have decreased steadily (Martin & Schmidt,
Although employees resign every day, millions of others simply contemplate their level of “disengagement” (Shuck & Herd, 2012). Disengagement can be defined as a situation whereby employees withdraw mentally, physically, and emotionally from their direct job roles (Wollard, 2011). Research suggested further that poor workplace conditions, meaningless tasks, and lack of support from managers may lead to further disengagement of employees (Shuck & Herd, 2012).

Gallup studies have been tracking employee engagement trends in the United States since 2000. More recently their studies show that only 13% of employees worldwide are engaged (Mann & Harter, 2016). A study by PDT (2015) found South African executives to dismiss the notion of work engagement and leave the responsibility with HR to drive it forward. A report in 2013 titled “Engaged for Success” calculated that in the UK alone the annual cost of a labour force that is 64% disengaged is equivalent to a $64.8 billion loss in revenue. PDT (2015) found 60% of executives, 68% of middle managers, and 61% of employees believe their work performance and overall motivation would improve if their companies engaged more effectively with them. This is supported by Macey, Schneider, Barbera and Young (2011) who stated that when employees are motivated they are more likely to have a positive attitude and be more dedicated towards their job.

Furthermore, only 9% of the South African labour force is engaged based on a measure of employee engagement (Palo, 2015). The results also showed that of the 91% who were disengaged, 45% were actively disengaged, meaning they were negative about their job and work environment and would likely spread the negativity to other colleagues (Kelly Group, 2017). It was found that professional and educated South Africans reported balanced levels of engagement. Furthermore, 67% of the employees who were surveyed reported they wanted their managers to lead and communicate more effectively. Based on these results, it is evident that it is crucial for South African leaders and managers to develop and enhance employee engagement strategies within organisations (Kelly Group, 2017).
Bakker (2017) found through his discussion via master classes, conferences, and workshops that managers, leaders, and consultants are aware that their respective organisations need to provide more interesting and challenging work environments. More importantly, in order to retain top talent, organisations need to provide a work context that offers a good fit between the employee’s role expectations and their work environment (Bakker, 2017).

1.3.2 Changed-oriented OCB

Researchers have spent the last three decades on the concept of organisational citizenship behaviour (OCB) (Podsakoff, Mackenzie, Paine & Bachrach, 2000). Researchers understand OCB to be a multi-dimensional construct that displays diverse features of discretionary behaviour which, is not directly related to job related behaviours (Podsakoff et al., 2000). According to Bettencourt (2004) and Williams and Nadin (2012) these behaviours were categorised into two broad groups: affiliative and challenging OCB. Organ (1988, p. 4) defined OCB as

individual behaviour that is discretionary, not directly or explicitly recognised by the formal reward system, and that in the aggregate promotes the effective functioning of the organisation.

Based on the above definition, Organ (1988) identified five dimensions including: altruism, sportsmanship, conscientiousness, courtesy, and civic virtue. Later studies defined extra-role behaviour (ERB) as another construct similar to OCB. Organ, Podsakoff and MacKenzie, (2006) defined Extra-role behaviour as “behaviour that attempts to benefit the organisation and that goes beyond existing role expectations” (p. 33).
Bettencourt (2004) defined additional activities of OCB known as change-oriented OCB that describes the actions of employees to be innovative and creative, and thereby aimed at bringing out positive change in the organisation (Bettencourt, 2004; Choi, 2007; Morrison & Phelps, 1999). Li, Lui, Han and Zhang, (2016) noted a number of points to consider when explaining change-oriented OCB, namely:

a) These change-oriented behaviours should include identifying and implementing changes.

b) The key word is “change-oriented” employees are expected to change current practices which already exists such as team policies, climate, and work procedures.

c) Since change-oriented OCB is extra-role behaviour, it is expected that the employees go beyond their job duties and tasks (Morisson & Phelps, 1999).

d) Employees should conduct change-oriented OCB behaviours but continue to respect the organisational rules and regulations.

e) Lastly, employees should improve organisational situations and task performance (Li et al., 2016).

Some studies suggested that change-oriented OCB should be considered a specific dimension of OCB, since it is directed at benefitting the organisation (Choi, 2007). Empirical studies revealed that organisational variables can meaningfully influence an employee’s change-oriented OCB. A study by Bettencourt (2004) found that leader-member exchange (LMX) had a direct positive effect on change-oriented OCB. This was later supported by Vigoda-Gadot and Beeri (2011) who, also found LMX, transactional and transformational leadership to influence change-oriented OCB. Choi (2007) reported that the change-oriented OCB increased at both individual and group levels when employees felt strongly associated with the company’s vision. Furthermore, studies revealed that both psychological empowerment and felt responsibility for change were positively related to change-oriented OCB at individual and group levels (Choi, 2007).
1.3.3 Psychological Capital

Psychological capital has its origins in positive psychology a term first coined by Seligman (2002). Building on Seligman’s work, and when applied to the workplace, Luthans (2002a, 2002b, 2003) contended the need to examine positive organisational behaviour, or POB as it is known, within positive psychology. POB is defined as “the study and application of positively oriented human resource strengths and psychological capacities that can be measured, developed and effectively managed for performance improvement in today’s workplace” (Luthans, 2002a, p. 59).

Psychological capital can be seen as a significant contributor to the competitive edge of organisations (Luthans, Luthans & Luthans, 2004). Luthans, Youssef and Avolio, (2007, p. 3) defined PsyCap as an individual’s positive psychological state of development that is characterised by:

1. having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks;
2. making positive attribution (optimism) about succeeding now and in the future;
3. persevering toward goals when necessary, redirecting paths to goals (hope) in order to succeed; and
4. when affected by problems and adversity sustaining and bouncing back and even beyond (resilience) to attain success.

Sweetman, Luthans, Avey and Luthans (2011) wrote that PsyCap is an important personal resource which helps to achieve organisational objectives since individuals with many resources cope better when they are faced with stressful demands. Moreover, the most distinctive feature and an important contribution of PsyCap is the individual’s ability to adapt and willingness to change (Peterson, Luthans, Avolio, Walumbwa & Zhang, 2011). Like change-oriented OCB, studies also demonstrated that PsyCap is important for performance at both individual and group levels (Gooty,
Gavin, Frazier, Johnson, & Snow, 2009; Luthans, Avolio, Avey & Norman 2007). A study by Du Plessis (2014) indicated that the relationship between PsyCap, authentic leadership, and all the relationships between their respective dimensions were significant. Additionally, it was found that PsyCap and psychological empowerment both had an impact and positive influence on the employee’s readiness to change (Lizar, Mangundjaya & Rachmawan, 2015).

1.3.4 Psychological Empowerment

As stated by Spreitzer (1995), psychological empowerment occurs when individuals have some control over their work life. She added that individuals experience intrinsic motivation based on their understanding of, and connection to their job function. However, psychological empowerment is formed by the individual’s cognitions of his/her environment and is not a fixed personality characteristic. Spreitzer (1995) defined psychological empowerment as:

> a motivational construct manifested in four cognitions: meaning, competence, self-determination, and impact. Together these four cognitions reflect an active, rather than a passive orientation to a work role. By active orientation is meant an orientation in which an individual wishes and feels able to shape his or her work role or context (p. 1441).

The four dimensions of psychological empowerment are defined as follows:

a) **Meaning** is a feeling of tenacity or personal connection to work;

b) **Competence** is the individual’s ideology that he or she has the necessary skills and talents to execute their job.

c) **Self-determination** is the feeling of having freedom to do one’s work, and

d) **Impact** is the individual’s belief that can impact the organisation given their
surroundings (Spreitzer, 1995).

It is further noted that the four dimensions can also be observed as psychological conditions that can result in engagement (Stander & Rothmann, 2010). Stander and Rothmann (2010) found that three dimensions, namely meaning, competence, and impact were significantly correlated to engagement and that self-determination was statistically significantly correlated to engagement. A study by Arefin, Arif and Raquib (2015) found psychological empowerment to be a positive mediator between the relationship of high-performance work systems and OCB.

According to psychological empowerment theory, employees who feel empowered are more likely to display a vigorous stance toward their work and will go “above and beyond” the call of their job duty (Spreitzer, 2008). When an employee’s work is meaningful and allows him/her to exercise individual discretion, it can result in organisational citizenship behaviours (OCBs). OCBs were found to be not only defined in an employee’s job description but also to promote a feeling of identification to and involvement with one’s overall work environment. Although Choi (2007) found that psychological empowerment mediated change-oriented OCB, and despite numerous antecedents of OCB, very little research has been found to accentuate the link between psychological empowerment and OCB (Alge, Ballinger, Tangirala, & Oakley, 2006; Taylor, 2013). Both leadership and positive PsyCap were significantly related to feelings of empowerment (Avey, Wernsing, et al., 2008).

1.3.5 Change-oriented Leadership

Managing change is not easy and failure to manage change effectively can lead to suboptimal organisational performance, wasted resources, and decreased employee morale (Lizar et al., 2015). In the context of a newly globalised market, theories in cross-cultural leadership have been developed to obtain a better understanding of
leaders today. International organisations are in need of leaders who are capable of adapting to diverse partners and employees from different cultures and environments (House, Javidan, & Dorfman, 2001). With this in mind, it cannot be assumed that a leader will be successful in all countries but will, however, experience different successes in different countries (Brodbeck, Frese, Akerblom, Audia, Bakaesi & Bendova, 2000; Javidan, Dorfman, de Luque & House, 2006). Whereas, with a change-oriented leadership style, the leader can be more flexible and able to make modifications when required based on employee demands, crises and new market demands (Kalyani, 2017). Kalyani (2017) stated that although leaders should be flexible, they also need to be more aware of how changes will impact the group when such changes are being made. Too many changes without concern for the organisation’s objectives can be disadvantageous towards the organisation.

The two-factor leadership theory, namely task and relation-oriented leadership has influenced many other leadership models used in organisations today. However, while conducting leadership and change research, Ekvall and Arvonen (1991) found supportive evidence of a third leadership dimension, known as change-oriented behaviour. Later, Yukl (1998) hypothesised that a third leadership dimension existed and conducted a follow-up research based on the two-factor conceptions of leadership by Ekvall and Arvonen (1991), and found support for and evidence of, the third dimension. This dimension included: identifying threats and opportunities, envisaging new opportunities, proposing new strategies, and influencing politically to support change. Yukl, Gordon and Taber (2002) defined change-oriented leadership with respect to the following behaviours:

a) monitoring the environment (analysing information regarding events, trends, and changes in an external environment to identify threats and opportunities for a team);

b) encouraging innovative thinking (challenging people to question their assumptions regarding their work and consider strategies for
improvement),
c) envisioning change (presenting an appealing description of desirable outcomes that can be achieved by a team and describing a proposed change with great enthusiasm and conviction), and
d) taking risks for change (taking personal risks and making sacrifices to encourage and promote desirable change) (Ortega et al., 2014, p. 313).

It was found that change-oriented leadership and group potency were positively related to both group performance and satisfaction (Gil, Rico, Alcover & Barrasa, 2005). Additionally, a study on nursing groups found both employees and their managers favoured leaders who were oriented toward change and their employees (Sellgren, Ekvall & Tomson, 2006). Detert and Burris (2007) found that change-oriented leadership was positively correlated to employees who were high performers and who expressed their opinions.

1.4 PROBLEM STATEMENT

For South African organisations to survive in a complex, globalised environment, they need employees to develop new skills, resources, and strategies to respond proactively to the difficulties and job roles of a new business environment (Stander & Rothmann, 2010). In order for organisations to cope with various external demands, it is vital for them to improve innovation and competitiveness and thereby rely more on the intelligence and creative thinking of their employees (Bester, Stander & Van Zyl, 2015). Research proposes that when leaders encourage creative thinking by their employees and within the organisation, it initiates various positive outcomes which, consequently, nurtures a culture of performance (Bester et al., 2015).

The South African organisation where this study was conducted had recently been sold and local directors were appointed under the new shareholding. Since the
announcement of the sale, there was very little communication to the workforce and no change management process was put in place to manage such a major change. A consulting firm was employed to do a focus group study through interviews to determine the organisational climate. The consulting firm found that middle management felt uncertain, left-out, leaderless, and unclear with respect to the future of the company. At the time of gathering the data for this study, there was less team work and feelings of mistrust and disengagement. Employees, on the other hand, were even less informed and were fearful as to whether there would be retrenchments. The question was whether leaders’ individual change orientation would be able to positively influence employee reaction to the change in a way that would help the organisation to prosper. Based on the history of the organisation, it was not clear whether the new leadership would have a change-oriented leadership style.

Robbins (2013) postulated that in order to manage organisational change, the most significant element is managing the human capital aspect of that process. Rafferty and Simmons (2006) found that trust between employees and their leadership indicated a positive relationship which could lead to employees’ readiness for change. In other words, for change to happen it is important that the employees are adequately prepared for such change (Robbins, 2013). This researcher therefore questions whether a leader’s individual change orientation will be able to positively empower and influence employees reacting to change in a way that prospers the organisation.

Given the above, this study investigated how this change will impact the organisation with respect to the possible research questions listed below.
1.5  RESEARCH QUESTIONS

This study aims to answer the following research questions:

1.5.1 Is there a relationship between the combinations of the variables and their dimensions which include change-oriented leadership, psychological empowerment, psychological capital, work engagement and change-oriented OCB?

1.5.2 Can a theoretical model of the relationships between these variables be developed and tested?

1.6  THE OBJECTIVES OF THE STUDY

The present study aims to achieve the following objectives:

- To develop a theoretical model of the relationships between the different variables. This, in turn, will inform the development of organisational interventions to improve the positive psychology realm with respect to work engagement, change-oriented OCB, psychological empowerment and psychological capital.

- To investigate how change-oriented leadership impacts psychological empowerment, PsyCap, work engagement and changed-oriented OCB.

- To provide an understanding of the change-oriented leadership levels of the South African sample.

- To provide a groundwork for future research on the change-oriented leadership
construct and change-oriented OCB.

- To contribute to the development of human resource strategies.

1.7 RESEARCH METHODOLOGY

The study made use of probability sampling and was taken from a South African manufacturing organisation. Probability sampling means that any of the possible subsets within the population have an equal opportunity to be chosen (Research Methodology, 2016). The sample comprised all employees of the organisation including managers. Management was chosen as part of the sampling since research shows that given today’s environment, managers are required to be more flexible and adaptable to change and at the same time obtain support and commitment to that change. The study collected data through both an electronic version and a paper and pencil format. To those employees who had access to emails, the electronic version was sent; for employees who did not have email access, a paper and pencil format was administered in scheduled group settings. Quantitative statistics were used to analyse the data in this study with the objective of providing evidence of relationships between the constructs.

1.8 SIGNIFICANCE OF THE STUDY

The researcher envisages this study will contribute and expand the literature in the field of Industrial Psychology. The researcher agrees with Luthans, Avolio, et al. (2007) that “PsyCap is an untapped human research that can be developed and sustained with the potential to generate competitive advantage” (Newman, Ucbasaran, Zhu & Hirst, 2014, p. 133). This study will assist HR professionals to understand how, and to what extent, PsyCap can contribute to workplace outcomes at multiple levels. Given today’s ever-
changing external environment, organisations are forced to adjust in order to maintain their competitiveness. Managing change is not easy and thereby places tremendous pressure on leaders to react proactively and to cope with such change (Lizar et al., 2015). With this in mind, this study adds to the knowledge and understanding of change-oriented leadership since it is a fairly new construct and holds great potential for future studies in changing environments.

1.9 FRAMEWORK FOR THE PRESENT STUDY

The research methods, findings, conclusions, and applications are elaborated on in the following chapters:

Chapter 2 explores previous literature and the history of work engagement, changed-oriented OCB, psychological capital, psychological empowerment, and change-oriented leadership. These constructs are defined and the antecedents and consequences of each construct are focused on. The researcher provides possible relationships between the respective constructs to support the propositions. Lastly, this chapter outlines contributing factors and areas of future development.

Chapter 3 describes the research methodology and design used in this study. The chapter describes the population and the sampling technique employed. It examines the reliability and validity in terms of the Cronbach alpha, Composite Reliability, and the Average Variance Extracted (AVE). Spearman’s rank correlation was used to evaluate the relationships between the variables. Confirmatory factor analyses were performed with Mplus, Version 7, which examined the goodness-of-fit for the measuring instruments. Additionally, structural equation modelling (SEM) using partial least squares (PLS) path modelling was conducted.
Chapter 4 provides the results of the quantitative data analysed and the results of the hypothesis testing will be outlined.

In Chapter 5 the research questions are answered based on the results in Chapter 4. Finally, this chapter presents the limitations and contributions of the study. The researcher makes recommendations for future research and outlines possible interventions to be used by HR professionals. This is followed by the final summary and conclusion.

1.10 DELIMITATION

The general intent of this study is to determine a theoretical model of the relationship between change-oriented leadership, psychological empowerment, PsyCap, work engagement and change-oriented OCB. As change-oriented leadership and change-oriented OCB have not been extensively studied, an appropriate theoretical framework to anchor the study could not be found. The researcher was interested in the new change-oriented leadership style and wanted to add to the professional field by revealing certain findings. This study will be limited to studying change-oriented leadership style only and no other leadership styles. The study was undertaken in one organisation in the manufacturing industry only.

1.11 CONCLUSION

Work engagement has evolved to become a significant subject not only for academics but to consultants advising to various businesses. Research claims that work engagement in the organisation can have a direct impact on the bottom-line (Macey & Schneider, 2008). Shuck and Herd (2012) postulated that employees look to their leaders for inspiration and guidance in an ever-changing landscape. As the changing...
aspects of work continue to evolve, HR individuals and their leadership are required to change in order to ensure meaning and hope for their workforce.

The conclusion delineates just how this study explored and investigated the relationship between work engagement, change-oriented OCB, psychological capital, and psychological empowerment, and change-oriented leadership. Furthermore, suggestions are provided for the further development of the variables in this study.
CHAPTER 2
LITERATURE REVIEW

2.1 INTRODUCTION

This chapter will review existing literature on the five variables including work engagement, change-oriented OCB, psychological capital (PsyCap), psychological empowerment, and change-oriented leadership. Work engagement and change-oriented OCB will be discussed first as they are the proposed outcomes of the variables which will be explored. The history of each variable will be discussed along with its various definitions. A review of the antecedents and consequences of the respective variables will follow and a summary and criticisms of each construct. The research will also provide a brief review of the interventions found to further develop these variables. Past empirical research outcomes will be discussed to establish a link between the variables to support the theoretical model suggested in this study. Finally, a summary of future research opportunities is presented.

2.2 WORK ENGAGEMENT

2.2.1 The notion of Work Engagement

Work engagement has gained popularity not only in the academic world but also in the consulting industry (Rothmann & Rothmann, 2010). The concept has been heavily promoted by consulting firms that offer their human resource expertise and advice on optimising engagement in organisations (Macey & Schneider, 2008). Managers agree that employees play an integral part in organisational performance, competitiveness, and innovation and are the main contributor to organisational success (Schaufeli & Salanova, 2008). Organisations try to attract employees who will themselves flourish and thereby contribute to organisational success. Research suggested that when
employees are more engaged they will be more productive and perform better. Hence, organisations need to develop and implement strategies that guarantee their employees are engaged and therefore will contribute to the organisation’s overall performance (Schaufeli & Salanova, 2008).

Globally, organisations are dealing with issues such as intensified competition, increased service demand by customers, job losses, and an increased need for employees to be cognitively and emotionally committed (Macey & Schneider, 2008). Many organisations have become interested in the role of management and how it is related to the way employees think and feel about their jobs (Ariani, 2013). Given the recent economic decline, organisations are of the opinion that work engagement provides a competitive advantage. With higher engagement levels, organisations report that employees have the ability to solve challenging organisational problems such as improving workplace performance and overall productivity (Macey & Schneider, 2008). Due to these positive outcomes, many organisations are making significant investments to improve employees’ engagement levels (Macey & Schneider, 2008). Rothmann and Rothmann (2010) reported that intense global competition has also created a need for employees to be more emotionally and cognitively committed to their customers and their work, which is in line with the meaning of work engagement (Truss, Delbridge, Alfes, Shantz & Soane, 2014).

From an academic perspective, work engagement has added to the field of positive psychology by advocating that job and personal resources increase the optimal functioning of individuals through work engagement (Quiñones, Van den Broeck & De Witte, 2013). Quiñones et al. (2013) wrote that from a practical perspective, work engagement has become relevant to organisations and practitioners because it has been linked to positive outcomes such as increased performance, extra-role behaviour, and affective commitment. Literature suggested that job and personal resources emerge as the main predictors of work engagement (Quiñones et al., 2013). Historically, studies on personal resources focused on a set of variables such as PsyCap (Luthans, Avolio,
et al., 2007). However, recent studies found that besides these variables there are other personal resources which predict work engagement and positive outcomes such as trait competitiveness (Quiñones et al., 2013).

Research has discovered that the development of engagement resulted in two merging developments, namely 1) the emergent significance of employees and their psychological involvement in business, and 2) growing scientific interest in positive psychological states of employees (Truss et al., 2014). Since the inception of work engagement, comparisons have been made among a number of other constructs such as organisational commitment, job satisfaction, and organisational citizenship. However, criticisms of work engagement have been raised as to whether it has incremental value in explaining variance over and above the existing variables. Others opposed the notion and has proven empirically that work engagement is a unique variable with distinct relationships among its dimensions (Macey & Schneider, 2008).

2.2.2 The history of Work Engagement

Engagement is a construct that has been extensively studied in both academic and consultancy fields and today forms an important part of human resource management within organisations (Van Heerden, 2016). This section examines the historical development of the construct of work engagement. Extant literature on this construct is based on the footprint of Kahn’s (1990) article “Psychological Conditions of Personal Engagement and disengagement at Work” based on psychological conditions of personal engagement and disengagement (Shuck & Wollard, 2009). Kahn’s work was derived from Goffman’s (1961) study on role theory stating that “people act out of momentary attachments and detachments in role performances” (Kahn, 1990, p. 694). Based on Goffman’s (1961) work, Kahn’s (1990) research began with the premise that employees in their respective roles can use different extents of their physical, cognitive, and emotional characters. Employees are capable of adapting themselves while
performing their roles which consequently has implications for their work and experiences. Kahn (1990) further elaborated on three psychological conditions, namely: meaningfulness, safety, and availability, all three of which impact an employee’s engagement or disengagement.

Maslach and Leiter (1997) suggested a methodology which viewed work engagement as the “antipode” of burnout, which was measured by the Maslach Burnout Inventory (MBI). They tried to find a way to prevent burnout, and proposed that engaged employees have a sense of energy and see their work as a challenge (Kuok & Taormina, 2017). Maslach, Schaufeli and Leiter (2001) further conceptualised work engagement and disengagement and focused on the reasons why employees experience burnout. They theorised that engagement is the opposite of burnout. Other researchers also found that engagement and burnout dimensions are opposites on a continuum whereas vigour and dedication are contradictory to emotional fatigue and cynicism (Gonzalez-Roma, Schaufeli, Bakker & Lloret, 2006).

Schaufeli and Bakker (2004) tested a model where they referred to work engagement and burnout as having different antecedents and consequences. Further investigations with respect to burnout suggested that work engagement and burnout are two dissimilar theoretical and empirical constructs (Schaufeli et al., 2008). Later, Schaufeli and Bakker (2004) developed the Utrecht Work Engagement Scale (UWES). The UWES measures the three dimensions of vigour, dedication, and absorption, thus redefining the construct as work engagement (Truss et al., 2014).

May, Gilson and Harter (2004) adopted Kahn’s concept of work engagement and developed a measure for it, however they failed to confirm engagement as a multifaceted construct. Harter, Schmidt and Hayes (2002) used the Gallup Q12 (Gallup Organization, 1992-1999), and termed it “satisfaction-engagement”. They termed this form of engagement as employee engagement and defined it as “the
individual’s involvement and satisfaction with as well as enthusiasm for work” (p. 269).

Saks (2006) also adopted Kahn’s (1990) concept of work engagement that an employee is psychologically “present” in a particular organisational role. Saks (2006) further proposed that “the two most dominant roles for most organizational members are their work role and their role as a member of an organization” (p. 604). Consequently, Saks (2006) suggested that work engagement could be distinguished from organizational engagement. Macey and Schneider (2008) regarded all these ideas as “old wine in new bottles,” and that they were in some way equal to engagement or a repackaging of other constructs with different labels. Macey and Schneider (2008) noted that the previous notions also failed to support engagement as a multifaceted construct. Therefore, there has been no accurate or generally accepted measure.

Employee engagement and work engagement is often used as synonyms however, there is a difference (Schaufeli, 2013). Schaufeli (2013) argued that work engagement refers to the employee’s relationship with his/her job, while employee engagement refers to the employee’s relationship with his/her job as well as the organisation. Literature further revealed the difference between the two concepts; work engagement can be attributed to the bottom-up approach and has also evolved in the consulting arena whereas employee engagement is attributed to the top-down academic approach (Truss et al., 2014).
2.2.3 Defining Work Engagement

The original concept of work engagement was coined by Kahn in 1990. He formally defined engagement as:

the simultaneous employment and expression of a person’s preferred self in task behaviours that promote connections to work and to others, personal presence (physical, cognitive, emotional) and active, full performances (Kahn, 1990, p. 694).

Based on Kahn’s perspective, work engagement is the best description of a multi-dimensional motivational notion reflecting the value of an individual’s physical, cognitive, and emotional drive and full performance (Ariani, 2013). Kahn further postulated disengagement to be:

the withdrawal of oneself and one’s preferred behaviours, promoting a lack of overall connectedness, emotional absence and passive behaviour (Shuck, Rocco & Albornoz, 2010, p. 302).

Kahn (1990) noted further that engaged people “employ and express themselves physically, cognitively, and emotionally during role performances” while disengaged people “withdraw and defend themselves physically, cognitively, or emotionally during role performances” (p. 694).

Kahn (1990) believed that being engaged or disengaged could not be described by individual differences and instead identified certain psychological conditions which can lead to a state of engagement, namely: meaningfulness, safety, and availability. His study defined three dimensions of psychological conditions:
a) sense of return on investments of self in role performances (meaningfulness),
b) sense of being able to show and employ self without fear of negative consequences to self-image, status, or career (safety), and
c) sense of possessing the physical, emotional, and psychological resources necessary for investing self in role performances (availability) (Kahn, 1990, p.705).

Therefore, when employees are subjected to these psychological conditions they assign an intrinsic value to their job role. Researchers in both management and industrial/organisational psychology have contributed to this body of knowledge and continue to exert further clarification of the concept based on Kahn’s (1990) groundwork (Jeung, 2011).

Consultancy firms like Gallup conceptualised employee engagement by renaming existing notions such as satisfaction, involvement, commitment, motivation, and extra-role behaviours. Gallup developed the Q12 in 1999 with their Gallup Work Place Audit known as the “satisfaction-engagement” survey. They defined engagement as the individual’s involvement and satisfaction with as well as enthusiasm for work (Harter, Schmidt, Agrawal, Plowman & Blue, 2016). A later study by Maslach, Schaufeli and Leiter (2001, p. 417) theorised work engagement as the positive antithesis to burnout and defined it as “a persistent positive affective – motivational state of fulfilment in employees characterised by high levels of activation and pleasure”.

Kahn (1990) and Maslach et al. (2001) equally provided the theoretical framework to understanding work engagement. According to Bakker, Schaufeli, Leiter and Taris (2008) work engagement is described as “a positive, fulfilling, affective-motivational state of work-related well-being” (p. 188). On the other hand, Schaufeli, Salanova, Gonzalez-Roma and Bakker (2002) noted work engagement can also be understood as the “persistent and pervasive affective-cognitive state that is not focused on any
particular object, event, individual or behaviour” (Schaufeli & Bakker, 2004, p. 294) or also “characterised by vigour, dedication and absorption” (Schaufeli, Salanova, et al., 2002, p. 74). Focusing on Kahn’s (1990) work, they studied the effect engagement had on the performance of an organisation. The three dimensions of work engagement used in this study are described below:

a. **Vigour**

Although the employee is faced with difficulties in his/her work environment that employee displays great levels of dynamism and psychological resilience (Schaufeli, Salanova, et al., 2002). He/she also displays a willingness to participate with determination in one’s work (Van Heerden, 2016). Schaufeli and Bakker (2004) found that vigour and burnout are complete opposites because they measure the latent energy construct. Vigour is also negatively related to burnout (Gonzalez-Roma et al., 2006; Hakanen, Bakker & Schaufeli, 2006; Sonn, 2015).

b. **Dedication**

The employee endures a sense of worth, eagerness, pride, and challenge whilst being strongly involved in work. Initially, dedication was developed as the opposite of the burnout dimension, cynicism (Schaufeli & Bakker, 2003). Dedication was defined as an employee being involved with his/her work and experiencing significance, enthusiasm and pride about his/her work (Schaufeli & Bakker, 2001). Furthermore, dedicated employees identify with and see meaning in their work (Schaufeli & Bakker, 2003).
c. **Absorption**

The employee is deeply engrossed and fully concentrated in his/her work. When the employee is in this engrossed state and is confronted with difficulties he/she has the ability to detach themselves from those difficulties (Schaufeli & Bakker, 2001). Absorption can be said to be opposite of lack of efficacy (Drake, 2012).

Bakker and Leiter (2010) translated work engagement into the personal energy employees bring with them to work. Despite displaying energy and enthusiasm, employees believe that their work warrants their personal energy on a regular basis. Their engagement is also utilised to solve challenging problems and to give attention to details. Hence, employees’ work engagement is affected by their reaction to organisational policies, practices, and structures (Bakker & Leiter, 2010).

Bakker and Demerouti (2007) developed the Job Demands-Resources (JD-R) model which was used as a framework to understand work engagement in an organisation. The JD-R proposed that every profession has its own elements relating to work stress. Job demands refer to:

those physical, psychological, social, or organisational aspects of the job that are either/or:

- functional in achieving work goals;
- reduce job demands and the associated physiological and psychological costs;
- stimulate personal growth, learning and development (Bakker & Demerouti, 2007, p. 312).
Job-related resources are considered to be significant antecedents of work engagement (Halbesleben, 2010) and according to the JD-R model the relationship between job resources and work engagement is explained through a motivational process (Bakker & Demerouti, 2007). In other words, job resources act as drivers of intrinsic and extrinsic motivation as they form part of basic human needs such as social interaction or belongingness. More recent studies suggest that the JD-R model successfully explains the impact that job and personal resources have on an employee’s health and well-being such as job satisfaction and work engagement (Van den Broeck, Vansteenkiste, De Witte, & Lens, 2008). Moreover, Fourie, Rothmann and Van de Vijver (2008) established empirical evidence of a negative relationship between job demands and work engagement.

As an alternative to the JD-R, Macey and Schneider (2008) argued that employee engagement develops from three constructs. These are illustrated in Figure 2.1 which provides an understanding of the employee engagement framework.
Figure 2.1 Framework for understanding the elements of work engagement.
Source: Macey and Schneider 2008, p. 6 based on the model by Bakker & Demerouti, 2007

The above figure looks at employee engagement in each of the contexts below and provides more meaning to how an individual and the organisation interact.

a) Trait engagement describes an individual’s disposition. These individuals have a high level of engagement which includes behaviour such as positive views of life and work as described above in Figure 2.1.

b) State engagement describes an individual’s current feelings. Depending on the daily work circumstances, the individual can feel more or less engaged. Types of feelings can include feelings of energy, absorption, satisfaction, etc.
c) Behavioural engagement – how an individual performs in his / her job. Behavioural engagement, unlike trait and state engagement, is not visible and refers to an individual going the “extra-mile” or “discretionary behaviour”. A few examples include extra-role behaviour and OCB (Warner, 2014).

In Figure 2.1, Macey and Schneider (2008) argued that workplace conditions can have an equally direct and indirect effect on state and behavioural engagement. Work attributes such as variety and challenge as well as the nature of leadership and, more particularly, transformational leadership, were conditions of particular interest to Macey and Schneider (2008). The figure further shows that work has an indirect effect on the relationship between trait and state engagement whereas leadership has a direct effect on behavioural engagement. Furthermore, their study outlined various traditions and models in research that fit the model shown in Figure 2.1 (Macey & Schneider, 2008).

A study by Shuck and Wollard (2009) outlined various inconsistencies in the definitions of work engagement. Firstly, most researchers are of the view that work engagement is a personal and individual decision and is not about the organisation (Kahn, 1990; Macey & Schneider, 2008; Saks 2006) whereas, others advocate that engagement is about the organisation (Czarnowsky, 2008; Maslach et al., 2001). Secondly, Shuck and Wollard (2009) identified several types of engagement, namely: cognitive, emotional, and behavioural engagement, each of which are separate definable areas. From the reviewed literature, each definition of engagement builds onto the next and is homogeneous within the framework of engagement (Shuck & Wollard, 2009). Lastly, work engagement has no physical effect properties, but it is demonstrated and measured behaviourally (Kahn, 1990; Macey & Schneider, 2008). The behavioural indicator “is understood inconsistently as an employee’s role performance, an employer’s success, or discretionary effort, but consistently understood as an internal decision manifested outwardly” (Shuck & Wollard, 2009, p. 138).
2.2.4 Antecedents of Work Engagement

A South African study by Rothmann and Rothmann (2010) explored which elements were related to work engagement. Their study was based on Kahn’s (1990) “personal engagement” and the “work engagement model” of Schaufeli and Bakker (2004). With respect to Kahn’s (1990) model, Rothmann and Rothmann (2010) found both psychological meaningfulness and psychological availability were positively related to work engagement. Psychological meaningfulness was also the stronger antecedent of work engagement and acted as a mediator between work engagement and work-role fit (Rothmann & Rothmann, 2010). With respect to the JDR model, research demonstrated that job resources, such as growth opportunities, career advancement, and organisational support were positively related to work engagement (Rothmann & Rothmann, 2010).

Jeung (2011) noted that empirical research shows that several organisational variables, such as perceived organisational support, perceived levels of procedural justice, rewards and recognition, and co-worker relations, and several leadership styles such as charismatic, transformational, and authentic leadership were identified to be determinants of engagement within the organisational context. Du Plessis (2014) found authentic leadership and psychological capital to be significant predictors of work engagement. Research also shows that there are a number of studies suggesting that leaders play an important role in an employee’s work engagement (Holman & Axtel, 2016), such as transformational leadership thereby influences employee personal and job resources (Breevaart, Bakker, Hetland, Demerouti, Olsen & Espevik, 2014).

In another South African study using a sample from government and a manufacturing organisation, Stander and Rothmann (2010) found that the three psychological empowerment dimensions, namely: meaning, competence, and impact were practically significantly related to work engagement whereas self-determination was statistically significantly related to work engagement. Stander and Rothmann (2010) further noted
that employees who have control over their work lives, have meaning in their work, believe they possess the right skills and capabilities to perform their duties, believe they can influence their environment, and have goals are more engaged in their work.

Empirical research found employees who are psychologically empowered are supposedly able to increase their work engagement levels and, simultaneously, their burnout levels decrease (Bhatnagar, 2012; De Villiers & Stander, 2011). Bhatnagar (2012) found psychological empowerment to be a powerful predictor of work engagement and further confirmed that work engagement is a mediating mechanism through which psychological empowerment affects innovation.

Harris (2012) found a positive relationship between PsyCap and work engagement and that PsyCap predicted work engagement. In this study efficacy, hope, and resilience had a stronger relationship than optimism. This was supported by Du Plessis (2014) who found that PsyCap was the strongest predictor of work engagement amongst authentic leadership and followership. The dimensions which explained the greater proportion of the variance in work engagement were hope and optimism (Du Plessis, 2014).

A recent study found there are associations between engagement and psychological capital (Thompson, Lemmon & Walter, 2015). Thompson et al. (2015) considered five different case studies based on five different companies using qualitative research. With respect to all five case studies, they found that the dimensions predominantly present were hope, efficacy, and optimism. Hope was found to have a statistically significant and positive relationship with engagement. Engagement grows when employees can set pathways for building hope by setting their own personal goals. They can then feel hopeful in the success and future of their jobs and the organisation (Thompson et al., 2015). When there are opportunities for employees to improve themselves through training it improves their efficacy and, in turn, their engagement. It was found that when employees know that their organisation supports and believes
in them, then those same employees improve their optimism. Furthermore, when employees have an understanding of their current and past job requirements, it enables them to track their career success thereby also resulting in increased optimism. Therefore, it was found that the dimensions of PsyCap also have an impact on work engagement levels (Thompson et al., 2015).

Research suggested that many factors may affect and influence work engagement and, more specifically, the behaviour of leaders which can possibly influence these factors. However, very little is known on how leadership behaviour influences the development of work engagement (Shuck & Herd, 2012). Other studies could also not establish a relationship between positive leadership and work engagement (Arakawa & Greenberg, 2007; Nel, Stander & Latif, 2015). However, Stander and Mostert (2013) found individual strengths to be a strong predictor of work engagement. This relationship suggests that when leaders focus on the employee’s strengths then acknowledgement and psychological empowerment increases the employee’s work engagement levels (Nel, Stander & Latif, 2015).

2.2.5 Consequences of Work Engagement

One reason why work engagement is popular is due to the fact that it is a very good predictor of important employee, team and organizational outcomes (Bakker & Albrecht, 2018). Employees who are engaged display a strong dedication and focus to their work activities thus showing a better in-role task performance (Christian, Garza & Slaughter, 2011) and improved financial results (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009).

Roozeboom and Schelvis (2015) noted that theoretically, work engagement is linked to all kinds of positive outcomes for organisations. It is found that engaged employees have lots of energy, committed to the organisation and are hard workers who do not
develop work-related stress. It is therefore found that engaged employees are not only productive, but they create a positive work attitude and a positive atmosphere at work as well (Roozeboom & Schelvis, 2015).

Furthermore, as a result of an engaged worker’s openness to new experiences, they produce more creative ideas and are more likely to innovate and be entrepreneurial (Bakker & Albrecht, 2018). In addition, research has shown that engaged workers are more inclined to help their colleagues and crosses over from one individual to the other (Bakker, Van Emmerick & Euwema, 2006).

Schaufeli and Bakker (2004) stated that when engaged employees are committed to their organisation, they are less likely to contemplate leaving the organisation. This opinion is supported by Du Plooy and Roodt (2010) who found a negative relationship between engagement and employees’ intention to leave. Christian et al. (2011) and De Oliveira and Da Costa (2017) also found that when employees are engaged they are less likely to leave.

As employees become more engaged, they experience a decrease in health problems, turnover intentions, exhaustion, and cynicism; instead, the result is higher levels of professional behaviour, increased productivity and, ultimately, successful business performance (Schaufeli & Bakker, 2004). Schaufeli and Bakker’s (2004) study indicated specifically that work and organisational engagement predicted organisational commitment, job satisfaction, intention to quit, and organisational citizenship behaviour organisation (OCBO). However, only organisational engagement predicted organisational citizenship behaviour individual (OCBI). Saks (2006) also found that job satisfaction, organisational commitment, and OCBO were significant effects of work engagement (Ariani, 2013; Bhatnagar & Bhatnagar’s (2012) study found psychological empowerment to be a predictor of work engagement, whereas work engagement was the mediator for the relationship between psychological empowerment, innovation, and turnover intention. It was further found that employees
who are empowered have increased levels of engagement and will ultimately relate to innovation. These individuals would have a lower turnover intention and are more likely to be loyal to the organisation.

2.2.6 Criticisms of, and controversies around, work engagement

Research indicated that work engagement contributed towards the overall success of an organisation and more emphasis should be placed on work dimensions which could be related to engagement levels. Organisations are increasingly relying on financial remuneration and other benefits to increase engagement (Hoole & Bonnema, 2015). Contrary to believing that monetary awards are the best motivator, new arguments support the idea that meaningful work assignments can be used to drive engagement (Hoole & Bonnema, 2015). Erickson (2011) suggested that “meaning is the new money, indicating that meaningful work instead of higher pay could facilitate more effort from employees” (p. 1). However, researchers question whether individuals experience the term “meaning” equally. There is a debate about the differences which exist amongst generational groups and what motivates and drives these groups to perform optimally (Drake, 2012). Trends indicated that older employees are working past their retirement age; however, the belief that older employees are less engaged than younger employees become a contentious issue. Therefore, should older employees want to remain even after their retirement age, then organisations would want these older employees to be more engaged and to perform optimally. If generational differences do exist, then leaders and HR professionals should tailor their engagement strategies to meet the specific needs of their organisation (Hoole & Bonnema, 2015).

Hoole and Bonnema (2015) suggested there is very little knowledge about work engagement and the value it adds in promoting the organisation’s competitive advantage. Contrary to this, the meta-analysis by Harter et al. (2016) found that employee engagement has a direct effect on the organisation’s bottom line and that
there is evidence showing employee engagement does indeed impact organisational performance (Harter et al., 2016).

Over the past few years, many consulting firms such as Gallup, Towers Perrin, Blessing White, ASTD, and the Conference Board have executed studies on employee engagement. A meta-analytical study by Harter et al. (2016) reported that, irrespective of the industry or business, engagement was found to consistently influence the performance outcomes of organisations. The study shows that the top quartile of business units outperforms bottom-quartile business units by 10% in customer loyalty/engagement, 21% in profitability, and 20% in productivity. As a result, it can be said that an engaged workforce, from an employee engagement point of view, is the key contributor of organisations in sustaining their competitive advantage (Macey et al., 2011). These researchers further recommended that organisations develop strategies which will enable them to have a competitive edge. This notion was supported by AON (a British multi-national) found that there was a statistically significant relationship between higher levels of engagement and financial performance, the result being that a 5% increase in engagement increases the gross revenue of the subsequent year by 3% (PDT, 2015). The report also noted that failure to communicate between management and employees is one of the major reasons for a disengaged workforce.

Consulting firms are making profits by selling their engagement surveys to clients and advising them what is needed to increase their employees’ engagement levels (Purcell, 2012). However, there are also limitations to these surveys, namely:

1) they are treated in isolation,
2) it is just a tick box exercise and indicates the engagement index for the year period and this is ultimately used in management appraisals, sometimes in a punitive way, and
3) the overall score does not explain why the engagement levels are either high or low.

Therefore, from a consulting perspective, for employee engagement to have meaning in an organisation it should look at different levels: the job itself, among co-workers, with customers, and with the immediate manager (Purcell, 2012).

2.2.7 Development of Work Engagement

Leaders, managers, and consultants recognise that employees are looking for more challenging job roles which include opportunities for growth, challenge, and engagement (Bakker, 2017). A more strategic approach by Bakker (2017) focused on a top-down and bottom-up approach to increase work engagement. The top-down approach focused on strategic human resource management and daily leadership while the bottom-down approach focused on self-management, job crafting, strengths use, and mobilisation of ego resources.

There was a need for employers to develop engagement initiatives if they wanted to increase the engagement levels of their employees. The Society for Human Resources Management (SHRM, 2017) suggested that HR practices should focus on the following: job enrichment, recruiting, selection, training and development, strategic compensation, and performance management. These practices can have a significant impact on engagement (SHRM, 2017). Jiang, Lepak, Hu and Baer (2012a) found evidence that high-performing HR systems can nurture the development of positive attitudes at work. This was corroborated by De Oliveira and Da Costa Rocha (2017) who found that HR management practices was positively related to work engagement. Furthermore, literature indicated the importance of strategic HR management, considering there is a positive relationship between engagement and performance (Bakker, Demerouti, & Sanz-Vergel, 2014; Christian et al., 2011). Additionally, from
an organisational perspective, SHRM (2017) suggested that employers should focus on their communication initiatives and workplace surveys. The engagement levels should be measured continuously to identify which engagement initiatives are achieving the desired organisational goals.

Literature shows the emergence of several interventions since 2010 (Knight, Patterson & Dawson, 2017). Most of these studies adopted Schaufeli et al.’s. (2002) conceptualisation of work engagement. Knight et al. (2017) identified four types of intervention which will be briefly discussed below:

(i) **Personal resource building interventions;**

The focus in personal resource building interventions is primarily on building an individual’s positive strengths and attributes as he or she sees them. As cited in Knight et al. (2017) these attributes may be strengthened by resilience, optimism or self-efficacy. Those employees with particularly high levels of individual resources, such as a strong work ethic, are generally perceived to view their demands at work in a positive way. They also tend to believe that, at the end of the day, their outcomes at work will be positive and, furthermore, believe their needs at work can be fully satisfied when they thoroughly engage in their defined role in the organization (Bakker & Demerouti, 2007).

(ii) **Job resource building interventions;**

As cited in Knight et al. (2017) the focus in job resource building interventions is on developing resources in the job/work environment including social support, feedback, and autonomy. By developing such resources, it is anticipated that work engagement, overall job performance and employee well-being will all be improved (Bakker & Demerouti, 2008).
(iii) **Leadership training interventions;** and

Leadership training interventions utilizes managerial skill-building and knowledge workshops that assist in measuring work engagement in employees (Rigotti, Otto, Mohr, Holstad, Stempel, Isaksson & Perko, 2014). It is assumed that by increasing the knowledge base and skills in managers, this will help them to motivate their employees to engage more fully in the workplace (As cited in Knight et al., 2017).

(iv) **Health promoting interventions.**

Health promoting interventions are designed to assist employees to adopt and then to sustain healthier lifestyles in order to reduce stress and anxiety. It is assumed that the physiological effects of regular exercise will increase a sense of well-being and add to work engagement, thus reducing burnout, absenteeism, and poor mental health (Strijk, Proper, Van Mechelen & Van der Beek, 2013).

The methodical literature search revealed that only 20 papers met the inclusion criteria and could be included in the meta-analyses. The results from the meta-analyses confirmed a positive, small, significant, effect on work engagement and each of its three dimensions, vigour, dedication and absorption (Knight et al., 2017). The results revealed that these interventions can improve employees' work engagement, in accordance with the JD-R model. Furthermore, the effect was perceived across various countries, organisational settings, industries and participant characteristics, indicating that generalisability and hence the benefit of work engagement interventions to organisations globally (Knight et al., 2017).
2.3 CHANGE-ORIENTED ORGANISATIONAL CITIZENSHIP BEHAVIOUR

Research has shown that organisations today need to operate in a vibrant and ever-changing environment if they are to meet current global challenges. Organisations often need to become more competitive by changing work methods, policies, and procedures. It is imperative that the employee’s own creativity and ideas should contribute significantly to this competitiveness, as they are often aware of the strengths and weaknesses of current organisational practices as well as those of their fellow employees (Seppala, Lipponen, Bardi & Pirttila-Backman, 2012). This type of behaviour can be referred to as “change-oriented organisational citizenship behaviour” (changed-oriented OCB). It is therefore essential to find antecedents of change-oriented OCB (Choi, 2007).

2.3.1 The history and definition of Change-oriented OCB

The origin of change-oriented OCB comes from the traditional notion of organisational citizenship behaviour. The influential work by Organ (1988) proposed that this type of behaviour described the “good soldier syndrome” whereby employees go above and beyond their call of work duties (Vigoda-Gadot & Beeri, 2011). The last three decades have seen many researchers focusing on the concept of OCB (Podsakoff, Mackenzie, Paine & Bachrach, 2000). Some researchers consider OCB to be a multi-dimensional construct, focusing on different aspects of discretionary behaviour which is not directly linked to job content behaviours (Podsakoff, Mackenzie, et al., 2000). Podsakoff, Mackenzie, et al. (2000) suggested that these behaviours can be categorised into two broad groups, namely affiliative and challenging OCB which may have different sets of antecedents. Affiliative OCB may be more associated with instrumentality beliefs and is more likely to result in positive consequences for individuals than challenging OCB which may be associated with moral beliefs (Bettencourt, 2004; Williams & Nadin, 2012).
Organ (1988) defined OCB as:

an individual behaviour that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the effective functioning of the organisation (p. 4).

Table 2.1 provides a list of the dimensions of OCB as identified by different authors (Dash & Pradhan, 2014).
Table 2.1 The dimensions of OCB according to different authors.

<table>
<thead>
<tr>
<th>AUTHORS</th>
<th>OCB DIMENSIONS IDENTIFIED</th>
</tr>
</thead>
</table>
| Smith, Organ & Near (1983) | Altruism  
General Compliance |
| Organ (1991) | Altruism  
Conscientiousness  
Sportsmanship  
Courtesy  
Civic Virtue |
| Lin (1991) | Identification with the organisation  
Assistance to colleagues  
Harmony  
Righteous  
Discipline  
Self-improvement |
| Van Dyne, Graham & Dienesh (1994) | Obedience  
Loyalty  
Participation |
| Farth, Earley & Lin (1997) | Identification with the company  
Altruism toward colleagues  
Conscientiousness  
Interpersonal Harmony  
Protecting Company resources |
| Podsakoff et al. (2000) | Helping behaviour  
Sportsmanship  
Organisational loyalty  
Organisational compliance  
Individual initiative  
Civic virtue  
Self-development |

Source: As cited in Dash and Pradhan, 2014, p. 20
Researchers have described OCB as a positive and constructive behaviour which is very important for both organisations and clients and that should be encouraged by managers (Vigoda-Gadot & Beeri, 2011). In Organ’s (1988) definition of OCB, he identified five dimensions, namely: altruism, sportsmanship, conscientiousness, courtesy, and civic virtue. A later study by Podsakoff, Mackenzie, et al. (2000) identified seven dimensions, namely: sportsmanship, civic virtue, helping, organisational loyalty, compliance, self-development, and individual initiative. It was further found that six of the Podsakoff, Mackenzie, et al.’s (2000) dimensions (with the exception of individual initiative) fell into the category of promotive and affiliative behaviour which is in favour of sustaining existing working relationships. In addition, individual initiative consists of behaviours that are planned to encourage change such as “voluntary acts of creativity and innovation designed to improve one’s task or the organisation’s performance” (Podsakoff, Mackenzie, et al., 2000, p. 524).

Organ, Podsakoff and Mackenzie’s (2006) later studies defined extra-role behaviour (ERB) as an additional theory similar to OCB. Extra-role behaviour was defined as “behaviour that attempts to benefit the organisation and that goes beyond existing role expectations” (Organ et al., 2006, p. 33).

Bettencourt (2004) defined activities of OCB known as change-oriented OCB. He described this as the innovative and artistic actions of employees intended to elicit constructive change in the organisation (Bettencourt, 2004; Choi, 2007; Morrison & Phelps, 1999). Morrison and Phelps (1999) referred to it as “taking charge” of an individual’s environment whereby the employee willingly makes practical efforts to influence organisational functional change relating to the manner in which the work is executed. Research showed other theories which are closely related to change-oriented OCB and include “voice” (LePine & Van Dyne, 2001), “innovative behaviour” (West & Farr, 1990) and “taking charge” (Morrison & Phelps, 1999).
Since change-oriented OCB is proposed to advance the organisation, consideration should be given to OCB being a specific dimension aimed towards the organisation (Choi, 2007). Choi (2007) defined change-oriented OCB as “constructive efforts by individuals to identify and implement changes with respect to work methods, policies, and procedures to improve the situation and performance” (p. 469).

Seppala et al. (2012) defined change-oriented OCB which “usually takes place in the context of a workgroup and creates challenges to the status quo in the group” (p. 138).

An earlier study by LePine and Van Dyne (2001) found empirical support for the multi-dimensional conceptualisation of extra-role behaviour, such as helping and voice. They found that helping is an affiliative behaviour whereas voice is an example of challenging behaviour. Bettencourt (2004) wrote that both affiliative and challenging types of OCB are needed for high performance. Although certain employees may not feel comfortable in doing so, it is important for them to have the freedom to make suggestions and recommend adjustments. Organisations today are faced with increased competition and unpredictable changes that require employees to become increasingly proactive, malleable, and innovative regarding issues relating to their job tasks (Bettencourt, 2004).

### 2.3.2 Antecedents of Change-oriented OCB

Choi (2007) found limited literature on change-oriented OCB that identified the contextual predictors found in Bettencourt (2004), Morrison and Phelps (1999), and LePine and Van Dyne (2001). Previous studies demonstrated that individual factors can predict change-oriented OCB while other empirical studies showed that organisational context factors can significantly affect an employee’s change-oriented OCB (Choi, 2007). LePine and Van Dyne (2001) found change-oriented behaviour to be positively correlated with an employee’s job attitude, such as job satisfaction.
Bettencourt (2004) reported that the quality of leader-member exchange (LMX) was increased by both transactional and transformational leadership which was a significant and positive predictor of change-oriented OCBs for all employees. This relationship was supported by Vigoda-Gadot and Beeri (2011) with Podsakoff, MacKenzie and Bommer (1996) indicating there is a strong relationship between leadership and change-oriented OCB. However, it was further found that when the quality of LMX is poor, strong perceptions about organisational politics result in a reduced inclination toward change-oriented OCB compared to situations in which employees sense that organisational politics is not a major factor in their work environment.

Vigoda-Gadot and Beeri (2011) found that age was negatively related to change-oriented OCB; however, it was positively associated with length of service. This is an interesting finding since it indicated that employees who have been in the organisation for a long time, and therefore have more experience, are more likely to engage in change-oriented OCBs.

Moreover, Vigoda-Gadot and Beeri (2011) found individual OCB was strongly and positively linked to LMX. Surprisingly, their study revealed a positive correlation between transactional leadership and change-oriented OCB but a negative relationship between transformational leadership and change-oriented OCB. The possible explanation for the difference in the relationship is the association that leadership styles have with organisational politics (Vigoda-Gadot & Beeri, 2011). Pillai, Schriesheim and Williams (1999) supported the finding with respect to the indirect effect of transformational leadership on change-oriented OCB through procedural justice and trust. This was further supported by Andrews and Kacmar (2001) who found a negative correlation between LMX and organisational politics. Vigoda-Gadot and Beeri (2011) assumed that managers in the public sector who build high-quality LMX relationships through the use of transformational leadership style reduced discernments of politics among employees through the support an identity they give to their employees. However, this justification does not apply to transactional leadership since the
relationship between the employees and their supervisor is established on reciprocity and exchange.

Bettencourt (2004) argued that in order to enhance organisational outcomes in any organisation there must be an improvement in the internal relationships between employees and managers. A retail study by Bettencourt (2004) predicted two traits of goal orientation and leadership styles which represented both dispositional and situational influencers which, in turn, influenced changed-oriented OCB. Bettencourt (2004) referred to goal orientation as an individual disposition which validated one’s ability to achieve. The two leadership styles Bettencourt (2004) referred to were LMX and transformational leadership and the individual dispositions were learning and performance goal orientation. He found that both individual disposition factors and situational influencers were strong antecedents of change-oriented OCBs. Additionally, the results supported the significant relations between the situational influencers and goal orientation traits in predicting change-oriented OCBs.

Choi (2007) established that an organisation’s vision and innovative environment increased change-oriented OCB at both individual and group level processes. With the exception to Choi’s (2007) study, very little research supported the notion that both psychological empowerment and felt responsibility for change at the individual level were significantly related to change-oriented OCB (Choi, 2007).

Seppala et al. (2012) explored a number of relationships between two dimensions of transformational leadership (supportive and development leadership), role-breadth self-efficacy, and felt responsibility for constructive change and its effects on change-oriented OCB. According to Rafferty and Griffen (2004), developmental leadership focused on a number of change-oriented behaviours including coaching the followers, inspiring them to improve their abilities, and choosing training interventions for them to undertake. However, supportive leadership only took the follower’s needs into consideration when making decisions. Contrary to Rafferty and Griffen (2004),
Seppala et al. (2012) found developmental leadership to be more effective in promoting change-oriented OCB. The results indicated that role breadth self-efficacy acted as a mediator for the relationship between developmental leadership and change-oriented OCB. Lastly, they found that resource availability impacted change-oriented OCB through the individual’s felt responsibility for constructive change. Additionally, developmental leadership developed the individual’s role breadth self-efficacy which directly affected change-oriented OCB in a positive way (Seppala et al., 2012).

Lopez-Dominguez, Enache, Sallan and Simo (2013) found breadth self-efficacy mediated the relationship between developmental leadership and change-oriented OCB. Additionally, felt responsibility to change mediated the relationship between innovative climate and change-oriented OCB. Furthermore, breadth self-efficacy also mediated a positive connection between organisational climate which, in turn, offered support for innovation and change-oriented OCB.

Seppala et al. (2012) found that the interacting relationships between work unit identification, sense of power, and openness to change values predicted change-oriented OCB. Furthermore, the interaction between work unit identification and openness to change values were important for employees with a high sense of power but not for employees with a low sense of power.

Simo, Sallan, Fernández, and Enache’s (2016) examined the relationship between promotion focus and prevention focus and their effect on change-oriented OCB. Promotion focus was linked to high achievement levels while a prevention focus was linked to high levels of duty and resources which was assigned to reaching success. The study revealed a significant relationship between promotion focus and change-oriented OCB. However, a non-significant relationship was found between prevention focus and OCB (Simo et al., 2016). The data did not confirm the relationship; the reason could be that the sample size was too small (Wallace, Johnson & Frazier, 2009). Additionally, employees who displayed high levels of promotion focus also had high
levels of affiliative and challenging aspects of OCB, such as change-oriented OCB (Simo et al., 2016).

Li, Liu, Han, and Zhang (2016) found that thriving at work mediated the relationship between empowering leadership and change-oriented OCB. Their study indicated that thriving at work was an important psychological state needed to promote change-oriented OCB. Sagnak (2016) hypothesised that participative management would increase intrinsic motivation which, in turn, would influence change-oriented OCB. These results pointed out that participative leadership had a significant influence on both change-oriented OCB and intrinsic motivation. This finding was also supported by other studies (Bogler & Somech, 2005; Huang, Iun, Liu & Gong, 2010). Additionally, intrinsic motivation was found to be a mediator between participative leadership and change-oriented OCB (Sagnak, 2016).

2.3.3 Consequences of Change-oriented OCB

Bettencourt’s (2004) study within a retail organisation, found that change-oriented OCB did not only demonstrate employees’ flexibility during their customer-related encounters but also encouraged changes in the broader framework of the employee’s job and work-role. Research showed that OCBs are extra-role and that they relate positively to benefit both supervisory evaluations and organisational outcomes, including change-oriented OCBs, which could lead to employee exchanges that have a mutual benefit (Bettencourt, 2004). In addition, higher importance was placed on an employee’s character when emphasis is added to change-oriented OCB. Bettencourt (2004) stated that even though OCB activities were important, they were not sufficient to ensure sustainability of an organisation. LePine and Van Dyne (2001) found that employees who engaged in change-oriented OCBs “must be change-oriented and willing to risk upsetting the status quo and interpersonal relationships at least in the short term” (p. 328).
It is clear from the literature that change-oriented OCBs are behaviours that include identifying and implementing changes (LePine & Van Dyne, 2001). The emphasis is added to change-oriented OCB which suggested employees are expected to change something that already exists in the organisation, such as team policies, team climates, or work procedures. Change-oriented OCBs are extra-role behaviours whereby the employee is expected to go over and above role expectations (Morrison & Phelps, 1999). Change-oriented OCBs also involve employees’ spontaneous participation in organisational changes which includes making suggestions to improve work performance as well as the overall work environment (Bettencourt, 2004; Choi, 2007). In light of the importance of change behaviours, managers are recognising the need to encourage their employees to participate in change-oriented OCBs (Li et al., 2016).

Very limited studies have examined the impact of any leadership style on change-oriented OCBs (Li et al., 2016) with the exception of leader-member exchange (LMX) (Vigoda-Gadot & Beeri, 2011) and support from leaders (Choi, 2007). More recently, researchers have started examining the effects of broader theories of leadership behaviour on change-oriented OCBs, such as the transformational leadership theory (López-Domínguez et al., 2013), empowering leadership (Li et al., 2016) and participative management (Sagnak, 2016).

2.3.4 Criticisms and controversies of Change-oriented OCB

Based on his study using a Korean sample, Choi (2007) pointed out that the dynamics of a particular sample may differ depending on the country it comes from. He assumed that Asian societies are more collectivistic when compared to Western societies. It is clear from the Korean sample that employees and managers are strongly influenced by their social environments, more so, than their Western colleagues. Moreover, Choi (2007) proposed that change-oriented OCB should be focused on the organisation and should be a specific dimension of OCB. This was supported by Vigoda-Gadot and
Beeri (2011) that change-oriented OCB should be separate from the other characteristics of OCB.

2.4 PSYCHOLOGICAL CAPITAL

2.4.1 The history and notion of Psychological Capital

The origin of psychological capital can be found in positive psychology and was originally coined by Seligman (2002). He primarily focused on positivity and on people’s strengths and virtues as opposed to their limitations (Seligman, 1998b). Positive psychology was developed with emphasis placed on the positive side of people rather than any negative issues they have or are dealing with (Seligman & Csikszentmihalyi, 2000). Building on Seligman’s work, and when applied to the work environment, Luthans (2002a, 2002b, 2003) contended the need to examine positive organisational behaviour or POB within the context of positive psychology. Luthans (2002b) defined POB as:

the study and application of positively oriented human resource strengths and psychological capacities that can be measured, developed and effectively managed for performance improvement in today’s workplace (p. 59).

Psychological capital, known as PsyCap, was developed by Luthans and Youssef-Morgan (2004) to encapsulate the strength of an individual’s psychological characteristics which is measurable, can be developed, and ultimately results in improving performance.

Luthans and Youssef-Morgan (2004) distinguished PsyCap from other types of people-related capital, such as social and human capital. Human capital is very similar to economic capital which refers to “the employees’ knowledge, skills, and ability which
increases by experience and/or investment in education and training” (what you know), whereas social capital creates a contextual element for human capital as it is related to the individual and his/her relationships with others and their networks, (who you know). Newman, Ucbasaran, Zhu and Hirst (2014) summarised that the transition from traditional thinking to PsyCap as indicated in Table 2.2.

Table 2.2 Transition from People-related capital to PsyCap

<table>
<thead>
<tr>
<th>Household Economic Capital</th>
<th>Human Capital</th>
<th>Social Capital</th>
<th>Positive Psychological Capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>What you have</td>
<td>What you know</td>
<td>Who you know</td>
<td>Who you are</td>
</tr>
<tr>
<td>• Finances</td>
<td>• Experience</td>
<td>• Relationships</td>
<td>• Self-efficacy (confidence)</td>
</tr>
<tr>
<td>• Tangible assets</td>
<td>• Education</td>
<td>• Network of contacts</td>
<td>• Hope</td>
</tr>
<tr>
<td>(plant, equipment, patents etc.)</td>
<td>• Skills</td>
<td>• Friends</td>
<td>• Optimism</td>
</tr>
<tr>
<td></td>
<td>• Knowledge</td>
<td></td>
<td>• Resilience</td>
</tr>
<tr>
<td></td>
<td>• Ideas</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Newman, Ucbasaran, Zhu and Hirst, 2014, p. 121

Luthans and his colleagues (2007) argued that PsyCap must be based on theory, have valid measures, and must be state-like (in contrast to trait-like). This is corroborated by Luthans, Avolio, Avey and Norman (2007) who suggested that PsyCap is a state-like trait and is receptive to development unlike fixed traits, like personality. PsyCap holds significant importance due to the fact it is state-like and can be developed through training interventions. Furthermore, employees’ PsyCap can also be influenced by their leaders (Luthans, Avolio, et al., 2007).

As an important contributor to the competitive edge of organisations, PsyCap is defined as
an individual’s positive psychological state of development that is characterised by 1) having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks; 2) making positive attribution (optimism) about succeeding now and in the future 3) persevering toward goals when necessary, redirecting paths to goals (hope) in order to succeed; and 4) when affected by problems and adversity sustaining and bouncing back and even beyond (resilience) to attain success (Luthans, Avolio, et al., 2007, p. 3).

Luthans and his colleagues identified four main psychological dimensions which form a higher-order construct, namely: hope, self-efficacy, resilience, and optimism (Luthans & Youssef-Morgan, 2007; Luthans, Youssef & Avolio, 2007), also known as HERO. Luthans and Youssef-Morgan (2017) suggested that HERO shared the same commonalities including: a sense of control, intentionality, and agentic goal pursuit. HERO also has unique characteristics whereby hope, efficacy, and optimism are proactive in nature and resilience is reactive and only occurs after a positive or a negative situation. Luthans and Youssef-Morgan (2017) illustrated in Figure 2.2 what is known to date about PsyCap.
Self-efficacy is based on Bandura’s (1997a) social cognitive theory and research. He defined self-efficacy as “an individual’s confidence in their ability to mobilise their motivation, cognitive resources and courses of action in order to achieve high levels of performance” (Newman et al., 2014, p. 122). Unlike individuals with low self-efficacy, those who displayed high self-efficacy normally thrived in challenging situations and were able to control their outcomes (Bandura, 1997a) whereas individuals who displayed optimism expected positive outcomes (Newman, et al., 2014). When optimism was high individuals generally form positive beliefs that motivated them to attain their goals and thus made them capable of handling challenging situations (Seligman, 1998). Hope consisted of two elements, namely: a) agency (goal-oriented energy) and b) pathways (planning to meet objectives). Agency referred to an individual’s motivation to attain a certain goal whereas pathways referred to the way
the task will be accomplished. Employees exhibiting high hope showed superior goal-oriented dynamism and were capable of developing different pathways to reach their objectives (Luthans, Avey & Patera, 2008). Resilience is the employee’s ability to recover from any difficult, challenging, adverse or even risky and/or stressful demand (Masten & Reed, 2002). Employees with high resilience dealt better with negative experiences or changes in their environment (Luthans, Vogelgesang & Lester, 2006).

Although individual dimensions have shown both convergent and discriminant validity of the HERO components, research indicated that as a higher-order construct PsyCap predicts employee satisfaction and performance better than any of the individual dimensions (Luthans, Luthans & Avey, 2014). Furthermore, positive psychological constructs, such as work engagement (Schaufeli & Bakker, 2004), psychological well-being, psychological ownership, wisdom, courage, and forgiveness will likely be added in the future (Luthans, Avey & Patera, 2008). For the purposes of this study, the four dimensions as they contribute to positive PsyCap are discussed below.

### 2.4.1.1 Hope as a dimension of PsyCap

Hope is a commonly used word in the English language that can be both wishful thinking (“I hope to see you again”) and that of a doubt (“I hope this works”) (Larson & Luthans, 2006). In positive psychology, hope has a very precise meaning. Snyder, Irving and Anderson (1991) defined hope as a “positive motivational state that is based on an interactively derived sense of successful (1) agency (goal-directed energy) and (2) pathways (planning to meet goals)” (p. 287). From this definition, Snyder, Sympson, Ybasco, Borders, Babyak, and Higgins, (1996) stated that hope involved both “willpower” (agency) and “waypower” (pathways). Later, Snyder (2000) defined willpower as having positive beliefs and specific objectives and waypower as having different pathways when expectancies are not going as planned.
Willpower is the motivational force that keeps individuals driven to reach their objectives. Therefore, willpower is described as an important dimension of hope. Willpower is necessary to reach objectives successfully and, more so, is critically aligned with agency thinking when an individual is faced with challenges trying to accomplish a desired objective (Larson & Luthans, 2006). With respect to academic success, Snyder (2002) said that hope enables students to conduct their motivation via alternative pathways to achieve their goals. Research further added that high hope is associated with enhanced outcomes in environments such as academics, athletics, and in making psychological adjustments (Snyder, 2002).

Snyder (2002) found that individuals with high hope have a higher probability of finding success due to their confidence in their chosen plan. In addition, they proactively developed alternative plans in the event the original plans did not succeed (Snyder, 2002). Luthans, Luthans and Avey (2014) supported the notion that individuals with high-hope are also capable of anticipating any obstacles that may prohibit them from attaining their goals. Nonetheless, the pathway thinking of low-hope individuals is much more demanding since the primary path is not well planned and these individuals do not proactively establish any alternative paths (Snyder, 2002).

The dimension of hope has received considerable support in research. Due to the positive impact of hope, a number of studies found the concept to correlate strongly with academic and athletic success, mental and physical health, and the ability to cope with hardship (Avey 2014; Snyder, 2000; Snyder et al., 1991). Larson and Luthans (2006) found hope to have a positive influence in the workplace and, more so, on performance (Snyder, Rand & Sigmon, 2002). Effective leaders created an environment of hope, thus suggesting that leaders with high-hope are strong due to their ability to set goals, create pathways, and contemplate alternatives (Snyder et al., 2002). High-hope leaders have correspondingly higher work unit performance, better retention rates, and higher employee satisfaction (Peterson & Luthans, 2003). Hope was found to be a stronger predictor of job performance than cognitive ability and self-efficacy

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Additionally, hope had a positive impact on organisational commitment, employee satisfaction, and work happiness (Youssef & Luthans, 2007).

2.4.1.2 Self-efficacy as a dimension of PsyCap

When applied to the work environment, Stajkovic and Luthans (1998, p. 66) defined self-efficacy as an “individual’s conviction about his or her abilities to mobilise the motivation, cognitive resources and courses of action needed to successfully execute a specific task within a given context”. Bandura (1997a) noted that instead of using the word efficacy, a more commonly used word in the workplace is confidence. Other researchers have proven that confidence, when applied in the workplace, can be measured and developed (Stajkovic & Luthans, 1998). Confident individuals will invest their energies into selecting challenging tasks and will normally persevere in times of hardship. Bandura (1997a) added that self-efficacy can be developed in four ways namely:

a) when an employee achieves success;
b) when employees learn through observing others in their team and they have completed a task and is remunerated therefore;
c) when they are persuaded or given positive feedback from respected others, and
d) through physiological stimulation and wellness (Bandura, 1997a).

Unlike individuals with high efficacy, individuals with low efficacy experience stress and anxiety because they anticipate failure (Luthans, Luthans, et al., 2014). Rothmann (2003) found that self-efficacy acted as a mediator between the relationship of occupational stress, burnout, and work engagement. Other studies indicated that self-efficacy correlated with the socialisation and retention of new employees (Bauer, Bodner, Erdogan, Truxillo & Tucker, 2007), as well as, organisational commitment and turnover intentions of existing staff (Harris & Cameron, 2005).
Moreover, research indicated that the impact self-efficacy when applied in the academic environment, was a significant predictor of academic performance (Rothmann, 2003).

2.4.1.3 Optimism

Optimism was found to be more closely linked to positive psychology than the other dimensions (Luthans, Luthans, et al., 2004). Luthans and Youssef-Morgan (2004) defined optimism as an “explanatory style that attributes positive, events to internal, permanent, and pervasive causes, and negative events to external, temporary, and situation-specific ones” (p. 153). Optimists see bad events as temporary whereas a pessimist will see bad events as permanent. An optimist is someone who will focus on the future and will anticipate that the future will be positive irrespective of the circumstances (Seligman, 2002). Carver and Scheier (2002) noted that “optimists are people who expect good things to happen to them; pessimists are people who expect bad things to happen to them” (p. 231).

Like efficacy, optimism has also been found to influence and improve performance (Seligman, 1998a). Seligman (1998a) reported that the more optimistic salespeople are, the less likely they would leave their organisation. Research also showed that optimism was related to the leaders’ positive influence on their followers’ optimism, satisfaction, stress and retention (Seligman, 1998a). Therefore, optimism meets the inclusion criteria for POB (Luthans, 2002a; Luthans, Avey, Avolio, Norman & Combs, 2006; Luthans, Youssef & Avolio, 2007). Additionally, research indicated that optimistic students are more likely to outperform pessimistic students and achieve better academic success (Valentine, DuBois & Cooper, 2004).

Optimism also has dysfunctions, drawbacks, and associated cost in the workplace (Luthans & Church, 2002). These researchers noted that managers who are optimistic could become distracted and neglect important work processes and thus fail to make
the necessary action plans to attain their objectives. Therefore, optimistic behaviour can lead to pointless ambition, such as striving to achieve unrealistic sales goals or winning at a company golf match which, ultimately, can result in failure and stress (Luthans & Church, 2002).

2.4.1.4 Resilience as a dimension of PsyCap

Like the other dimensions of PsyCap, resilience is a term drawn from clinical psychology. Earlier research, particularly in child psychology, suggested that “resilience is a phenomenon resulting from normal human adaptational responses and was characterised by good outcomes in spite of serious threats to adaptation or development” (Masten, 2001, p. 228). Resilience is a common topic in both clinical and positive psychology. There is substantial evidence that suggests resilience can be dispositional and trait-like but also state-like and open to development (Coutu, 2002). Inferring from this research and theory, Luthans (2002a) defined resilience as the “positive psychological capacity to bounce back from adversity, uncertainty, conflict and failure or even positive change, progress and increased responsibility” (p. 702). Unlike other dimensions, resilience is more likely to be a reactionary state whereby people are confronted with change, hardship, or uncertainty (Luthans, Luthans, et al., 2014).

Masten (2001) wrote that building resilience required the development of adaptive systems (including cognitive and learning processes). Coutu (2002) noted that “adding to the adaptive process both a lucid perception of reality, allowing for effective rational responses to given circumstances and the inclination to seek or make meaning from events allowing them to build bridges from present day hardships to a fuller, better constructed future home” (p. 50). Therefore, resilience can have a direct impact on performance, can be measured (Schwarzer & Knoll, 2003), and can be developed on the individual level (Luthans & Youssef-Morgan, 2004).
Masten (2001) thought that resilience was rather rare in people; however, evidence shows that it can come from ordinary, normative human resources and has insightful implications for promoting competence and human capital in individuals and society. Therefore, research has shown from both clinical and positive psychology that, like the other three dimensions, resilience can contribute to positive psychological capital and outcomes on performance. In an educational setting, research indicates that students’ levels of resilience predicted positive outcomes such as more enjoyment in class, better class participation, and general self-esteem (Masten & Reed, 2002).

Resilience was found to be associated with effective coping mechanisms which, in turn, enabled growth and development. This reaction can further lead to higher commitment even when the current work environment and job requirements are unfavourable (Youssef & Luthans, 2007).

2.4.2 Antecedents of PsyCap

A meta-analysis found that many empirical studies provided significant validation of PsyCap in individual outcomes (Avey, Reichard, Luthans & Mhatre, 2011). This meta-analysis discovered a major oversight in the theoretical development and empirical research on PsyCap. These researchers found very few studies that measured anything pertaining to the formation of PsyCap. In other words, few have considered the antecedents of PsyCap in a theoretical model. Following a comprehensive literature review, Avey, Reichard, et al. (2011) further noted that “there has been no systematic method of examining antecedents to PsyCap which suggests this may be a fruitful area of future research” (p. 148). The results of the study suggested that fixed constructs such as supervision, individual differences, job characteristics, and demographics may predict levels of PsyCap at work (Avey, Reichard, et al., 2011).

A study by Newman et al. (2014) compiled a detailed review of the existing literature
on PsyCap. A large number of studies investigated the relationship between PsyCap and behaviour, employee attitudes, and performance at an individual level. Avey, Luthans, Smith and Palmer (2010) examined its influence on both team and organisational levels and found there is a direct relationship between resilience and job performance. Avey, Reichard, et al. (2011) found a positive relationship between PsyCap and job satisfaction, organisational commitment, well-being, OCBs, and performance. Newman et al.’s. (2014) meta-analysis also discovered a major omission in research on the theoretical development of antecedents of PsyCap.

Other antecedents such as job satisfaction related positively to self-efficacy as a dimension of PsyCap. There is growing evidence that when organisations provide support to their employees such support develops their PsyCap and thus gives them hope to find different ways of reaching their goals, thereby enabling them to recover quicker from major obstacles (Newman, et al., 2014). Employees who had more supervisor support showed higher PsyCap and, in turn, had higher performance levels (Liu, 2013). PsyCap was found to be a strong mediator between the relationship of supportive organisational climate and job performance (Luthans, et al., 2008). This was supported by Coutu (2002), thereby indicating there is also a direct relationship between resilience and job performance. Newman et al. (2014) further found that satisfaction from a buddy system used to support new recruits led to higher PsyCap which, in turn, predicted work engagement.

Avey, Reichard, et al. (2011) found a negative relationship between PsyCap and undesirable attitudes. These undesirable attitudes included cynicism for change, stress, anxiety, and turnover. Later studies revealed that employees who experienced stress either at work or home displayed lower levels of PsyCap (Newman et al., 2014). This was supported by Liu, Chang, Fu, Wang and Wang (2012). When female medical practitioners felt there was a lack of incentives and over commit themselves to work, they showed lower levels of PsyCap which was then positively associated with depressive symptoms. Similarly, Wang, Chang, Fu and Wang (2012) found PsyCap
acted as a mediator between the relationship of work-conflict and three dimensions of burnout. Another study found that feeling uncertain about one’s job led to lower levels of PsyCap which, in turn, led to higher stress levels and lower levels assigned to meaning to life (Newman et al. 2014).

Studies examined the relationship between PsyCap, transformational, and authentic leadership at both individual and team levels (Newman et al., 2014). These studies found that PsyCap, on an individual level, mediated the relationship between transformational leadership, follower job performance, and OCB and also a positive relationship between authentic leadership and employee creativity (Newman, et al., 2014). Furthermore, a study by You (2016) found the PsyCap of college students had a significant positive relationship with learning empowerment whereas learning empowerment mediated the relationship between engagement and PsyCap.

An extensive review by Luthans and Youssef-Morgan (2017) found that few studies support antecedents such as job characteristics, personality traits, supportive organisational climate, and leadership styles as well as variables to be accounted for in PsyCap models. More importantly, demographics, although often controlled, are rarely related to PsyCap and if they are it is often a weak relationship (Avey, 2014).

### 2.4.3 Consequences of PsyCap

What is of critical importance to managers and organisational decision-makers is the consequences of PsyCap since the research regarding PsyCap can influence the organisational bottom line (Luthans & Youssef-Morgan, 2017). Avey, Reichard, Luthans and Mhatre (2011b) reviewed 51 independent samples that supported PsyCap as a predictor of performance and employee attitudes, such as job satisfaction, organisational commitment, and psychological well-being. They also found that undesirable attitudes, such as cynicism, turnover intentions, work stress, and anxiety,
undesirable behaviour related negatively to PsyCap however, positively with OCB (Avey, Reichard, et al., 2011b). They also found that the relationship between PsyCap and its consequences was not consistent across contexts and that PsyCap is more influential in studies conducted in the United States than in other countries.

A meta-analysis by Newman et al. (2014) reviewed 66 PsyCap studies and found that performance, attitude, and behaviour to be consequences at individual, team, and organisational levels. Peterson et al. (2011) noted that the most distinguishing feature and most important contribution of PsyCap was to influence an individual’s openness to change and develop. Further studies demonstrated that PsyCap was important for performance at both individual and group levels of analyses (Gooty et al., 2009; Luthans, Avolio, Avey, & Norman, 2007). This was supported by Baron, Franklin and Hmieleski (2016) who found PsyCap can be associated with outcomes of general importance for individuals and organisations.

Studies indicated that employees with high levels of PsyCap reported high levels of job satisfaction (Avey, Reichard, et al., 2011; Luthans, Avolio, et al., 2007; Newman et al., 2014). It was found that low PsyCap predict lower levels of meaning to life which can result in a decrease in satisfaction with life (Newman et al., 2014). However, life satisfaction was found to be positively correlated to self-esteem and optimism (Lorenz, Beer, Putz & Heinitz, 2016), thus proposing another connection to PsyCap. Studies showed that the need to sustain social relationships is essential to human happiness. Karademas (2006) reported a positive relationship between life satisfaction and social support and an indirect relationship through optimism. Social support was not only associated with self-esteem but increased optimism (Lorenz et al., 2016). As cited in Lorenz et al. (2016) studies found PsyCap to be positively related to well-being (Avey et al., 2010; Avey et al., 2008; Dawkins, Martin, Scott & Sanderson, 2013). Additionally, Avey, Luthans, et al. (2010) showed that PsyCap can lead to psychological well-being over time.
Coutu (2002) found a positive relationship between resilience and meaning. She reported that people who are more resilient find more significance and meaning during hardship than people who are less resilient. Furthermore, it was found that PsyCap and psychological empowerment had both an impact and a positive influence on an employee’s readiness to change (Lizar et al., 2015).

Many studies found a positive relationship between PsyCap and work engagement (Bakker, Van Emmerick & Euwema, 2006; Bakker et al., 2008; Hodges, 2010; Simons & Buitendach, 2013). Bakker and Demerouti (2007) found that self-efficacy and optimism predicted work engagement. In another study amongst highly skilled Dutch technicians, Xanthopoulou, Bakker, Demerouti and Schaufeli (2009) found engaged employees displayed high self-efficacy; they were capable of meeting the demands they faced and had the perception that they would experience good outcomes in life. This was supported by a study in a South African call centre. Simons and Buitendach (2013) found that self-efficacy and optimism had a positive relationship with work engagement. Bakker, Schaufeli, Leiter and Tanis (2008) found resilience to be very similar to the work engagement dimension, vigour. They described vigorous people to be mentally resilient and had the will to put effort into their work despite facing adversity. This was further supported by Sihag and Sarikwal (2014) who found that employees who had higher levels of hope and resilience displayed higher levels of engagement.

Employees who had high PsyCap were more empowered and this, in turn, led to a decrease in turnover and resulted in a reduction in absenteeism (Avey, Hughes, Norman & Luthans, 2008). Likewise, individuals with high PsyCap and who had the ability to draw upon resources to pursue their goals performed better than those low in PsyCap (Luthans et al., 2007). Most importantly, PsyCap can be developed through training and can be a beneficial and tangible construct resulting in influencing both individuals and organisations in a positive way (Luthans et al. (2008). Other studies found gratitude and optimism to be closely related (Lorenz et al., 2016). Luthans, Youssef, et al. (2007)
described gratitude as the “extra-mile” travelled by employees with high PsyCap. They proposed further that being grateful can assist in sustaining a positive attitude towards life and this positive view is similar to certain aspects of optimism and hope.

2.4.4 The mediating role of PsyCap

PsyCap was found to mediate the relationship between perceived organisational climate and performance (Luthans et al., 2008). PsyCap was also proposed to act as a mediator between stress and incivility (Roberts, Scherer & Bowyer, 2011). They noted further that the inclusion of PsyCap as an alternate mediator could provide additional insight into the relationship between workaholism and incivility by including a personality trait rather than a situational factor (i.e. stress).

South African studies conducted by Harris (2012) and Du Plessis (2014) found PsyCap and its dimensions to be a predictor of work engagement. This was supported by Tabaziba (2015) who found PsyCap to be a predictor of work engagement and of mindfulness, whereas mindfulness is a predictor of work engagement. Mindfulness is defined as a sense of heightened awareness, was found to be related to resilience (Avey, Wernsing & Luthans, 2008). Avey et al. (2008) found that when individuals have low PsyCap but rank high levels of mindfulness this compensates for their low PsyCap which, therefore, allows them to continue experiencing positive emotions (Avey et al., 2008).

2.4.5 Development of PsyCap

There are several advantages to PsyCap for employees, leaders, and organisations. Researchers argued that PsyCap challenges individuals to explore their identity (Luthans & Youssef-Morgan, 2004) and, consequently, this increases self-awareness
which is essential for leadership development. Developing PsyCap in employees is beneficial for organisations and, when fully developed, has the ability to successfully direct and develop the talents, strengths, and potential of employees which, in return, assists organisations to reach a lasting competitive edge (Luthans, Vogelgesang, et al., 2006).

Research has demonstrated that PsyCap can be associated with various employee attitudinal, behavioural, and performance outcomes which can change and be developed (Luthans, Luthans & Avey, 2014). Furthermore, state-like constructs such as hope, self-efficacy, optimism, and resilience are more flexible and open to change and development. There is sufficient theoretical and empirical research to support this notion (Bandura, 1997a; Carver & Scheier 2002; Seligman 1998; Snyder, 2000). Carver and Scheier (2002) determined that “change in an optimistic direction is possible” (p. 240) through training interventions.

Sweetman and Luthans (2010) suggested that PsyCap can be understood as a significant personal resource to help individuals achieve their goals. They further suggested that when individuals have many resources they cope better when faced with stressful situations and demands. Tabaziba (2015) noted there are specific development programs to enhance attributes of resilient individuals. These programs improve the trainees' resilience skills which develop specific attributes such as:

1. avoid negative thoughts when things do not go according to plan or the norm,
2. test the accuracy of beliefs about how to solve problems and finding solutions that work, and
3. remain calm and focused in stressful environments (Tabaziba, 2015, p. 17).
Luthans et al. (2006) developed a training model intended to improve PsyCap as well as the levels of the four dimensions which, in return, would improve performance. The PsyCap Intervention - (PCI) as it is known - has proven to be effective in both the workplace and educational settings. A cross-sectional study where employees received a two-hour online PCI training displayed significant and positive improvement in PsyCap levels. The results were different as opposed to team building or leadership exercises given to a randomly controlled group. Most importantly, this experiment proved that the PCI training significantly increased the PsyCap levels of the participants (Luthans, Avey, et al., 2008).

Luthans, Avey, Avolio and Peterson (2010) also demonstrated in their cross-sectional study of managers that PsyCap can be developed. Subsequent to the PCI training, the managers had significantly higher levels of PsyCap. Additionally, the result of the interventions increased the self-rated performance and manager-rated performances. Research showed that PsyCap has not only a positive impact on employee performance (Avey, Reichard, et al., 2011; Luthans, Avolio, et al., 2007) but with student academic performance as well (Luthans, Luthans & Jensen, 2012). However, little support was found that short training exercises, such as PCI had a positive effect on the academic performance of business students (Luthans et al., 2014).

South African HR practitioners and managers are encouraged to support PsyCap in order to create a caring workplace which shows an appreciation of employees who are affected by negative economic and social issues. Based on the evidence, the study argued that employees in senior positions had higher levels of PsyCap (Du Plessis & Barkhuizen, 2012). Additionally, their study indicated that HR practitioners with graduate degrees were significantly more optimistic than those with undergraduate degrees (Du Plessis & Barkhuizen, 2012). Thompson et al. (2015) wrote that leaders should look deeper into PsyCap if they are serious about increasing employee engagement. PsyCap is a way of directly influencing the employees’ emotional bonds to the values and goals of the organisation. They suggested that implementing a training
intervention to develop PsyCap can lead to strengthening engagement between employees and the organisation. The rationale for this is that employees will see that the organisation is concerned about them and is willing to help improve their emotional state (Thompson et al., 2015). A case study indicated that a catering company applied the core dimensions of PsyCap as part of its leadership philosophy and this resulted in employee engagement levels which scored in the upper decimal level (Thompson et al., 2015). Du Plessis & Barkhuizen, (2012) claimed that it is not clear whether PsyCap in a South African context originates as a result of the employee’s position in the organisation or as a result of other factors such as dealing successfully with adversity. They suggested that this would be worth investigating further by means of qualitative research and correlation studies.

Luthans et al. (2007) found that employees’ PsyCap increased on average by 2% only when micro interventions were applied. This occurred when experimental groups had PCI sessions. The same applied to participants or equal groups who did not receive these interventions; however, they were measured on the same variables before and after the sessions. This intervention, according to Luthans et al. (2007) included components which were applicable to developing each dimension of PsyCap, which will be discussed below.

2.4.5.1 Developing Hope

Luthans et al. (2006) noted that goals, pathways, and agency can all influence hope. When individuals want to develop hope they practice work-related goals which are not only personally valuable but realistically challenging. However, there must be a clear start and end point. Upon completion, the group gives feedback on probable obstacles each individual may encounter. The individual is then encouraged to seek additional or alternative pathways to use. Furthermore, this method of development increases the individual’s pathway to create the necessary skills and abilities to identify and plan for
obstacles and can, therefore, reduce the negative effect these obstacles may have on willpower (Luthans et al., 2006).

2.4.5.2 Developing Self-efficacy

Luthans et al. (2006) noted that when individuals develop efficacy they create stepwise techniques to realise their goals. For example, an individual will explain each step to the group and the group will respond on how each step will be attained (Luthans et al., 2006). The responses from the group develop task mastery which is needed for the design and pursuit of goals. The individuals learn vicariously by watching their peers and listening to their stories on how they achieved their goals. Luthans et al. (2006) suggested another way to develop efficacy is through emotional arousal. This is influenced by the positive belief of reaching the goals and the social persuasion of the trainer. Efficacy is further influenced through the group’s validation of how schedules, timelines, and goals will be achieved.

As described under the development of hope above, in order to build efficacy even further there is a requirement to plan obstacles and generate pathways which provides a basis for the development of positive outcomes (Luthans et al., 2006). This can only be attained if individuals are capable of confidently recognising and planning to overcome these obstacles. On the other hand, if there are negative expectations that goals will not be achieved then individuals are challenged to identify pathways and to find solutions to overcome obstacles. This results in increased optimism by both the individual and the group as expectations of success increased (Luthans et al., 2006).
2.4.5.3 Developing Optimism

Efficacy provides the foundation for developing positive outcomes (Luthans et al., 2006). This can be attained when individuals are capable of identifying and planning to overcome obstacles that result in an increase in their belief that they can reach their goals. When individuals anticipate the goal may not be reached they become challenged to identify pathways to attain success and to search for solutions to overcome obstacles. The feedback given by the group increases the individual's optimism by allowing them to witness the entire group planning their success (Luthans et al., 2006).

2.4.5.4 Developing Resiliency

Resiliency is developed by building awareness of personal assets in the form of talents, skills, and social networks (Luthans et al., 2006). Individuals are given exercises to determine which resources they possess or could use and then have them make plans to avoid obstacles that may prevent them from succeeding. When the individual is faced with adversity, his/her resilience is effected by the fact they become aware of their initial thoughts and feelings. This is based on their assessment of the resources they possess and their options to overcome adversity (Luthans et al., 2006). During the process of developing resiliency, individuals are asked which resources they are able to prioritize in order to accomplish a particular goal. Once they have created a list of resources, the other members, along with their peer groups, identify resources which the individual may have excluded (Luthans et al, 2006). The individuals are then asked to re-prioritize the resources. Furthermore, when identifying resources, individuals are also able to identify in advance the obstacles which may influence their progress. These indicate that the development of PsyCap is possible through highly focused micro interventions within the workplace (Luthans et al., 2007).
2.5 PSYCHOLOGICAL EMPOWERMENT

2.5.1 The history and notion of Psychological Empowerment

Empowerment as defined by Conger and Kanungo (1988) is the process which enhances an organisational members’ effort to perform and increase his/her feelings of self-efficacy among organisational members (Arefin, Arif & Raquib, 2015). The notion of empowerment can trace its origins from organisational theories, management practices, and employee involvement. Initially, psychological empowerment was defined in a uni-dimensional way; however, lately it is defined by Hougton and Yoho (2005) as a multi-dimensional motivational construct.

Conger and Kanungo (1988) “identified four antecedent conditions of the psychological state of empowerment, namely organisational factors, supervision, reward system and job characteristics” (As cited in Zhu, May & Avolio, 2004, p. 19). According to Spreitzer (1995), psychological empowerment occurs when individuals exercise some control over their work life. It refers to the intrinsic motivation an individual experiences based on perceptions about that employee and how he/she relates to their job role. Psychological empowerment consists of cognitions which are formed by one’s environment and is not a fixed personality attribute.

Sargolzaei and Keshtegar (2015) wrote that empowerment is a strategy to encourage and create a culture where employees can both control themselves and are ready to accept more responsibility in the future. Employees who feel empowered can develop their abilities and knowledge and, in return, use them to achieve both individual and organisational goals.

Many definitions of empowerment have been expressed. Adding on Thomas and Velthouse’s (1990) literature, Spreitzer (1995) defined psychological empowerment as:
a motivational construct manifested in four cognitions: meaning, competence, self-determination and impact. Together these four cognitions reflect an active, rather than passive orientation to a work role. By active orientation is meant an orientation in which an individual wishes and feels able to shape his or her work role or context (p.1441).

The four cognitions are defined as follows: *meaning* is a feeling of purpose or personal association to work; *competence* is the individuals’ confidence that they have the necessary skills and abilities to accomplish their job; *self-determination* is the feeling of having freedom to do one’s work, and *impact* is the individuals’ belief that they can influence the system surrounding them. Furthermore, it is suggested that the four dimension can also be observed as psychological conditions which may lead to engagement (Spreitzer, 1995). Houghton and Yoho (2005) argued that collectively these four dimensions define psychological empowerment in the work environment.

Bernard and Bass (2006) wrote that empowered employees experience work in a positive, active, and energetic light and tend to show higher job satisfaction and organisational commitment. It must be noted that the four dimensions work in an additive way; in other words, if an individual lacks one of the dimensions, then he/she will simply feel less empowered rather than having no empowerment at all. Therefore, empowerment is a continuous variable that reflects the degree of empowerment rather than the presence or the absence of it (Spreitzer, 1995).

### 2.5.1.1 Meaning

Stander and Rothmann (2010) found that when meaning is applied to work it is defined as the value employees place on their goals which are judged in relation to the employee’s own beliefs and standards. In other words, the more a task is consistent with the employee’s value system, the more the employee will believe in doing the job
Furthermore, meaning results from a feeling that the job task is both valuable and makes a difference in the organisation (Stander & Rothmann, 2010). It is further noted that the activities or goals the employee is engaged in must be consistent with the employee’s own value system and only then will the employee care deeply about what they do and feel its importance (Zhu et al., 2004).

Hartmann (2003) suggested that in order for employees to feel empowered they need to have a clear picture of the organisational vision and goals to be able to establish a sense of meaning in their work. Stander and Rothmann (2010) stated that having meaning in one’s job role is a way to nurture employee motivation and attachment to work which can result in engagement. Additionally, Heine, Prouxl and Vohs (2006) found that when an individual’s sense of meaning is threatened, it can result in that person finding alternative ways of recovering meaning, such as doing volunteer work.

2.5.1.2 Competence (self-efficacy)

Competence can be seen as represented by self-efficacy and also confidence with respect to the demands of the job. This dimension is referred to as competence rather than self-efficacy due to its emphasis on efficacy specific to the job role (Spreitzer, 1995).

Competence refers to one’s knowledge and capability necessary to successfully perform the job or task (Houghton & Yoho, 2005). Research has shown that enhanced intrinsic motivation and well-being can be associated with an individual feeling competent with respect to one’s valued goals (Stander & Rothmann, 2010). Empirical evidence has illustrated that competence has strong effects on performance (Wang & Lee, 2009) and that there is a strong relationship between self-efficacy and engagement (Maslach et al., 2001). Based on the definitions, the individuals should not only feel confident they have the skills and capability but also believe they are able to perform
the task well. Furthermore, should employees not feel confident in their skills and capability, the employees will not feel empowered by their supervisor (Choong, Wong & Lau 2011).

2.5.1.3 Self-determination

Self-determination refers to freedom or discretion that one can exercise control over the way work is performed (Houghton & Yoho, 2005). According to Fourie (2009) “self-determination is the degree to which people endorse their action at the highest level of reflection and engage in the action with a full sense of choice” (p. 45). It also reflects the independence in being able to make decisions about work procedures as well as the effort involved and the speed of work processes (Stander & Rothman, 2010). Wang and Lee (2009) noted that choice is having the feeling of independence in instigating and regulating work which reflects the amount of self-determination in work processes and behaviours. It is also a significant element of intrinsic motivation when faced with adversity and can influence learning, interest, and resilience. Furthermore, Stander and Rothmann (2010) postulated that an individual cannot find one’s true self if one does not have independence. Fourie and van Eeden (2010) concurred that independence is a synonym of self-determination. However, when there is no self-determination, individuals feel helpless when they are not allowed to make work-related decisions which they consider suitable.

2.5.1.4 Impact

Impact is defined as “the degree to which an individual feels that he/she can influence strategic, administrative or operating outcomes at work” (Wang & Lee, 2009, p. 273). Individuals who feel they can influence and make a difference to the broader organisational goals or system are more motivated (Wang & Lee, 2009) which, in turn,
contributes to work engagement (Stander & Rothmann, 2010). Choong, Wong and Lau (2011) suggested that managers should consistently encourage their employees to complete the tasks which, in turn, will affect the outcome of the organisation. Consistent with past theories, when all four dimensions of psychological empowerment are high then the highest levels of intrinsic motivation are anticipated (Seibert, Wang & Courtright, 2011).

2.5.2 Antecedents of Psychological Empowerment

Literature over the past two decades has refined the definitions of psychological empowerment by exploring its antecedents and consequences. Psychological empowerment is found to be related to various work behaviours, attitudes, and performance (Wang & Lee, 2009). Very limited studies have been primarily focused on the relationship between psychological empowerment and leadership (Spreitzer, De Janasz & Quinn, 1999). Spreitzer et al. (1999) found a positive relationship between psychological empowerment and leadership and, more specifically, change-oriented leadership. The strongest relationship was between innovation and upward influence, two of the leadership characteristics, and psychological empowerment. Although this relationship was found to exist, they suggested it would be interesting to examine the degree of interaction between these two constructs (Spreitzer et al., 1999).

The original work on empowerment by Kanter (1977, 1983) viewed organisational structures and practices as indicators of empowerment. However, current research regards these as appropriate antecedents of psychological empowerment (Seibert et al., 2011). A meta-analytic study by Seibert et al. (2011) investigated a framework of antecedents and consequences which included individuals and team empowerment. This can be seen in Figure 2.3.
The framework depicted in Figure 2.3 indicates that all antecedents predicted were positively related to psychological empowerment. The framework for antecedents was classified into contextual antecedents and individual characteristics. Contextual antecedents included high-performance managerial practices, socio-political support, leadership, and work design characteristics (Seibert et al., 2011). Individual characteristics included positive self-evaluation traits, human capital, and gender. Furthermore, there was a strong relationship between human capital variables such as job level, tenure, and age and psychological empowerment; however, the confidence interval around the population correlation was zero for education. Hence, contextual antecedents had a stronger relationship with psychological empowerment as opposed to individual characteristics (Seibert et al., 2011). Furthermore, there was a significant relationship between high-performance managerial practices, socio-political support, leadership, and work design characteristics (Seibert et al., 2011).
As cited in Chiang and Jiang (2008) studies examining the relationship between trust and empowerment contended that trust is the essential element in improving empowerment. Consistent with Hancer and George’s (2003) study, Chiang and Jiang (2008) found trust directly influenced all four dimensions of psychological empowerment. It was also found that organisational culture, which encourages decision making and autonomy, was shown to be an antecedent of psychological empowerment. Furthermore, supportive leadership played an important role in managerial trust and organisational culture (Chiang & Jiang, 2008).

Contrary to Chiang and Jiang’s (2008) research, Ghani, Raja, Hussin and Jusoff (2009) found a small but positive relationship between psychological empowerment and values, trust, access to information, and organisational support while access to resources and the opportunity to learn and develop had a moderate positive relationship.

2.5.3 Consequences of Psychological Empowerment

Spreitzer (1995) found that psychological empowerment and engagement are important variables to study when organisations are dealing with various changes. As an employee’s psychological empowerment increases, that employee then exercises better control over his/her personal circumstances which, in turn, leaves the employee more engaged (Quinn & Spreitzer, 1997). Spreitzer et al. (1999) established a relationship between the empowerment dimensions and the characteristics of change-oriented leadership, namely: innovation, upward influencing, and inspiration. However, empowerment had very little impact on monitoring (another characteristic of change-oriented leadership).

A positive relationship was found between psychological empowerment, job satisfaction, and organisational commitment; however, psychological empowerment had a negative relationship with turnover intentions and strain (Seibert et al., 2011).
Research has shown that empowered employees are more likely to be committed to their organisation (Zhu, et al., 2004). Although many studies examined the relationships between the dimensions of psychological empowerment and organisational commitment, not all studies indicated a positive relationship between these dimensions and organisation commitment (Choong, Wong & Lau, 2011). Seibert et al. (2011) found a positive relationship between psychological empowerment and behavioural characteristics such as task performance, OCB, and innovation at work. Wang and Lee (2009) found meaning, impact, and self-determination to be significantly and positive predictors of job satisfaction whereas competence was not a predictor. Consistent with existing literature, Wang and Lee (2009) supported the concept that psychological empowerment contributes to positive work outcomes such as job satisfaction. To the contrary, Chiang and Jiang (2008) found self-determination was significantly and positively related to job satisfaction; however, organisational commitment had no relationship with any of the psychological empowerment dimensions. Their study showed that the dimensions of psychological empowerment were not strong enough to be a predictor of job satisfaction and neither were they related to organisational commitment (Chiang & Jiang, 2008).

Other studies found that employees who experience purpose with their work believe they possess the expertise and abilities to satisfactorily perform their work, to influence the system, and have valued goals and are therefore more engaged in their work (Mishra & Spreitzer, 1998; Quinn & Spreitzer, 1997). Stander and Rothmann (2010) found three dimensions of psychological empowerment that were statistically significantly related to work engagement with meaning showing the highest correlation. Stander and Rothmann (2010) found that meaning, competence, and impact were practically significantly related to work engagement whereas self-determination was statistically significantly related to work engagement. Jose and Mampilly (2014) found a positive relationship between psychological empowerment and work engagement.
As cited in Sangar and Rangnekar (2014) almost every organisation acknowledged that it required employees who have the authority to make decisions without their supervisor’s consent, who consider their work important, who take psychological ownership, and who ultimately are psychologically empowered. Furthermore, when individuals believe they are empowered to take decisions and also understand the risk associated with the task they are involved in, they will generate creative ideas that would not only improve the effectiveness of their department but also of the organisation as a whole (Sangar & Rangnekar, 2014). Karakoc and Yılmaz (2009) confirmed that empowered employees, no matter to which level they belong, can enhance the efficiency of the organisation by applying their creative skills and abilities at all times. Fernandez and Moldogaziev (2013) found that empowerment in the public sector helped in promoting the creativity levels of their employees. This is corroborated by Sangar and Rangnekar (2014) who observed that all four of the dimensions had a positive relationship with individual creativity.

Tuuli and Rowlinson (2009) found there is definitely a positive relationship between work performance and psychological empowerment. Their study yielded interesting results and with a sample of predominantly 87% Chinese managers and in a culture which emphasised social hierarchy, order, and certainty seems somewhat contradictory, particularly where positive performance is a consequence of psychological empowerment. Irrespective of cultural differences, Tuuli and Rowlinson (2009) found psychological empowerment remains effective in stimulating positive performance behaviours across cultures. Similar results were obtained in Western cultures (Chen, Kirkman, Kanfer, Allen, & Rosen, 2007; Seibert, Silver & Randolph, 2004). Contrary to these findings, in a cross-cultural study Hui, Au and Fock (2004) found that empowerment had a stronger influence on job satisfaction in low power-distance cultures than in high power-distance cultures.
Additionally, Chiang and Hsieh (2012) indicated that organisational performance was directly affected by organisational citizenship behaviour when it was influenced by psychological empowerment.

### 2.5.4 The mediating role of Psychological Empowerment

Prior researcher indicated that because psychological empowerment is a set of psychological states, employees are more likely to participate in extra-role behaviours, act autonomously, and have higher commitment (Spreitzer, 1995). This was confirmed by Zhu et al. (2004) who indicated that an employee who feels empowered is likely to be more committed to their organisation. Another study reported similar findings whereby psychological empowerment was positively related to employees’ commitment (Wiley, 1999). Zhu et al. (2004) found that employees display greater commitment to the organisation when they are empowered by ethical standards. Zhu et al. (2004) noted that when employees feel empowered they show a greater level of trust towards their leaders. This was supported by Zhu et al. (2004) who found that psychological empowerment acted as a mediator between the relationship of ethical leadership and employees’ trust in their leader.

Avolio, Zhu, Koh and Bhatia (2004) reported psychological empowerment to be a mediator when there is a relationship between transformational leadership and organisational commitment. It was further revealed that psychological empowerment mediated the relationship between transformational leadership and leadership effectiveness. Therefore, researchers proposed that psychological empowerment act as a mediator between transformational leadership and employee work attitudes (Avolio et al., 2004; Lan & Chong, 2015). Joo and Lim (2013) found that psychological empowerment was significantly related to perceived transformational leadership which, consequently, had a positive influence on career satisfaction. Therefore, career
satisfaction was only impacted when transformational leadership was mediated by psychological empowerment.

A study by Nel, Stander and Latif (2015) found positive leadership was significantly positively correlated to psychological empowerment. This is supported in other studies that focused on positive leadership practices (Seibert et al., 2011; Stander & Rothmann, 2010). Furthermore, these researchers found that psychological empowerment mediated the relationship between positive leaders and life satisfaction, hence validating that the combination of positive leadership practices and higher levels of psychological empowerment increases employees’ overall life satisfaction (Nel et al., 2015).

Arefin et al. (2015) found psychological empowerment mediated the relationship between high-performance work systems and employee OCB. A Chinese study on nurses showed that psychological empowerment mediated the relationship between structural empowerment and burnout. Additionally, when psychological empowerment acts as a mediator the path between structural empowerment and burnout is reduced to zero (Meng, Jin & Guo, 2016).

2.5.5 Development of Psychological Empowerment

Research has shown that individual levels of psychological empowerment contribute to the experience of psychological empowerment in a project setting. Although this is the case, many cross-cultural studies indicated there are different empowerment effects across cultures, hence creating uncertainties on the merging theory of management practices (Tuuli & Rowlinson, 2009). Research also indicated that culture can be a limiting factor when implementing psychological empowerment and making it more acceptable and effective in different contexts. By validating that empowered employees display positive performance behaviours, it is clear that organisations see
psychological empowerment as a valuable pathway to pursue, especially if they are seeking performance improvement in project settings (Tuuli & Rowlinson, 2009).

Nel et al. (2015) recommended that in order to improve leaders’ levels of psychological empowerment, interventions, such as, leadership discussions, mentoring, and coaching should be implemented. In addition, results of their research encourage organisations to implement training interventions and strategies to improve employees’ psychological empowerment.

Research conducted in a Swedish company studied the effects of training on psychological empowerment and its dimensions. The training program was a three-day workshop which included employees from various departments and was offered several times a year. By the time the research was conducted, the company had executed 40 workshops (Voegtlin, Boehm & Bruch, 2015). The longitudinal study found that training participation had an effect on empowerment rather than vice versa. Training on an individual level related to the work unit’s motivational state, thus suggesting that training has an affect across all levels. Furthermore, the training participation to the collective psychological empowerment does not affect all the dimensions to the same degree (Voegtlin et al., 2015).
2.6 CHANGE-ORIENTED LEADERSHIP

Virtually all organisations have experienced change in one way or another; however, in today’s work environment it is at a much faster and more dramatic pace than ever before. Due to technology and globalisation, modern organisations are becoming more fluid as they require less space and time to operate (Friedman, 2005). There are other influencing factors such as changes in demographics, dual-income families, more educated individuals, and more talent to choose from (Pearce & Randel, 2004). The playing field with respect to rules and boundaries has affected employees and organisation alike and in the modern work environment one needs to be more flexible (Feldman, 2002). These dramatic changes cause people to manage their careers differently and also impacts how they identify and interact with their organisation. Organisational identification is important as it requires employees to implement strategies which preserve their psychological well-being and their organisational success (Pearce & Randel, 2004).

It is clear that the world is changing rapidly and organisations must react quickly in order to develop and survive (Alvesson & Sveningsson, 2008). As a result of globalisation, the application of new technologies and ever-changing environments causes organisations to be faced with ongoing processes of transformation (Shamir, 1999). Managers, executives, and leaders are assigned the responsibility of anticipating change (Kotter, 1990) which requires them to pursue exceptional competitive advantages and, more specifically, better strategies to more effectively manage their employees (Fuchs, 2011).

Leadership remains a contentious issue among researchers and many have published books and articles on the topic. Even though leadership is one of the most observed constructs it remains one of the least understood phenomena. Leadership duties include organising activities, motivating, assigning tasks, and achieving the targets of the group irrespective of the culture (Muhs, 2001). Leaders play the role of change agents who
facilitate the development of relationships between themselves and their employees (Carter, Armenakis, Field & Mossholder, 2010). As a change agent they need to manage the change by continuously improving organisational strategy, structure and competencies to accommodate the constant change required from external and internal customers (Moran & Brightman, 2001). It is suggested that when a superior relationship exists between the leader and his/her employees, then the employee will explicitly react to such leadership. This relationship should also encourage and support effective employee change behaviours such as in-role task performance and extra-role OCB (Carter et al., 2010). Extensive studies over the past half century have been completed on leadership behaviours. Different leadership styles and behavioural taxonomies have substantial differences in the number and type of behaviours they include (Yukl, 2012). For example, Yukl (1998) contended that although there is an overlap between transformational leadership and change-oriented leadership, they remain different concepts.

2.6.1 The history and definition of change-oriented leadership

The University of Michigan and Ohio State University in the 1940s were the first to develop the two-dimensional leadership model which is both relations-oriented and task-oriented. Rensis Likert from the University of Michigan recognised leadership as a one-dimensional construct, suggesting that leaders only used employee-oriented behaviours (relationship-oriented) or production-oriented behaviours (task-oriented). This study was later revised and adopted a two-dimensional leadership construct which directed the relationship between leadership behaviours and small group performance as indicators of effective leadership (Norris, 2010).

Later, whilst doing leadership and change research based on the two-factor theory of task and relations leadership, Ekvall and Arvonen (1991; 1994) found a third leadership dimension known as “Change-centred leadership”. Their study obtained empirical
results in support of the third-dimension which was later added to the existing leadership dimensions. They defined a change-centred leader as someone who:

initiates new projects, offers new ideas and ways of doing things, has a creative attitude and likes to discuss new ideas, is willing to take risks in decisions and offers ideas and plans about the future (As cited in Bosman, 2003, p. 76).

Shortly thereafter, Yukl’s (1998) research on the two-factor conceptions of leadership resulted in supportive evidence of a third dimension known as **change-oriented behaviour**. Yukl’s (2002) study included leaders, managers, and supervisors from various organisational settings and identified three independent categories of leadership behaviour, namely: task-oriented, relationship-oriented, and participative behaviour. Although the identification of these behaviours could potentially be relevant for effective leadership, Yukl (2002) realised it might not be effective or relevant in all situations.

Yukl (2002) defined these three categories as follows:

1. **Task-oriented behaviour.** Effective leadership involves placing emphasis on planning, coordinating, and providing the resources needed by followers, including establishing goal-setting objectives.

2. **Relationship-oriented behaviour.** Effective leadership moves beyond task-oriented behaviour to provide more support and assistance to the followers manifested through trust, consideration, and appreciation of follower contributions.

3. **Participatory behaviour.** Effective leadership uses more group supervision as opposed to direct supervision on a one-to-one basis. Participatory leadership involves managing group meetings, influencing commitment and conformity,
and assisting in conflict and communication issues (As cited in Norris, 2010, p. 126).

Based on transformational leadership, Spreitzer et al. (1999) focused on the leadership elements which related more to making organisational and personal change. In their study these researchers focused on the change-oriented elements which were more closely related to psychological empowerment. It was found that in order for leaders to make change, they had to:

1. Develop creative ideas to manage and deal with change. Bass (1985) suggested that change leaders need to envision change, be innovative in their thoughts and actions, take risks, and look for innovative solutions to problems.
2. Influence top management to support their ideas. Leaders need to exert upward influence in the organisation. As change agents, they need to communicate and sell their vision to obtain the support and the necessary resources (Denison, Hooijberg & Quinn, 1995).
3. Inspire subordinates to make change happen. Leaders need to create enthusiasm as well as inspire and motivate their employees to make the vision a reality (Spreitzer et al., 1999).

As proposed by Yukl (2004), the Spreitzer et al. (1999) model is comparable to leadership theories including transformational and charismatic leadership. The purpose of this model was to explain leadership processes at various theoretical levels of analysis. Additionally, the model also sought to describe the impact leaders have on organisational processes, analyse provisional characteristics of effective leadership, and highlight the significance of leadership processes.

Yukl, Gordon and Taber (2002) defined change-oriented leadership based on the following behaviours:
a) “monitoring the environment (analysing information regarding events, trends, and changes in an external environment to identify threats and opportunities for a team);
b) encouraging innovative thinking (challenging people to question their assumptions regarding their work and consider strategies for improvement);
c) envisioning change (presenting an appealing description of desirable outcomes that can be achieved by a team and describing a proposed change with great enthusiasm and conviction);
d) taking risks for change (taking personal risks and making sacrifices to encourage and promote desirable change)” (Ortega et al., 2014, p. 313).

Ekvall and Arvonen (1991) considered the similarities between transformational and change-oriented leadership and found that both had to do with setting new directions, goals, and visions. They also differentiated between the two constructs and stated that transformational leadership focused on changing the follower whereas change-oriented leadership focused on the development of the organisation itself, meaning that transformational leaders can inspire change in followers and lift their needs and desires to higher levels whereas change-oriented leaders focus more on the changing environment of the work and goals of the organisation.

Herold, Fedor, Caldwell and Liu (2008) failed to find a correlation between the measures of transformational leadership and change-oriented leadership. Although these two constructs are closely related to one another, they are not identical since change-oriented leadership can be found in transactional leadership as well (Golm, 2009). Yukl (2004) postulated that some of the components of transformational leadership can be linked to the components of the flexible leadership model, raising the question whether transformational leaders, by default, engage in change-oriented behaviours.
Yukl (2012) provided a review of the hierarchical taxonomy of leadership and suggested that these leadership behaviours influence the performance of the team, work unit, or organisation. Table 2.3 below outlines the four meta-categories and their different objectives which are all determinants of performance:

**Table 2.3 Hierarchical Taxonomy of Leadership Behaviours (Yukl, 2012)**

<table>
<thead>
<tr>
<th>Task-oriented</th>
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<tbody>
<tr>
<td></td>
<td>Clarifying</td>
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<tr>
<td></td>
<td>Planning</td>
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<tr>
<td></td>
<td>Monitoring operations</td>
</tr>
<tr>
<td></td>
<td>Problem solving</td>
</tr>
<tr>
<td>Relations-oriented</td>
<td>Supporting</td>
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<tr>
<td></td>
<td>Developing</td>
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<td></td>
<td>Recognising</td>
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<tr>
<td></td>
<td>Empowering</td>
</tr>
<tr>
<td>Change-oriented</td>
<td>Advocating Change</td>
</tr>
<tr>
<td></td>
<td>Envisioning change</td>
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<tr>
<td></td>
<td>Encouraging innovation</td>
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<tr>
<td></td>
<td>Facilitating collective bargaining</td>
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<tr>
<td>External</td>
<td>Networking</td>
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<tr>
<td></td>
<td>External monitoring</td>
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<td></td>
<td>Representing</td>
</tr>
</tbody>
</table>
Yukl (2012) wrote that each component of behaviour is dependent on the situation and does not necessarily result in positive outcomes or in achieving the primary objective. With respect to change-oriented behaviours, the first two components highlight leader initiation and encouragement to change whereas the second two component behaviours emphasise the leaders’ facilitation of evolving change processes. Moreover, Yukl (2002) stated that the same processes and models can be used to explain managers and leaders jointly instead of trying to distinguish between them. Since both make use of a combination of management and leadership behaviours, managers and leaders need to combine their necessary abilities to manage the daily work activities efficiently while simultaneously anticipating and managing change.

2.6.2 Antecedents of Change-oriented leadership

Gil, Rico, Alcover and Barrasa (2005) found change-oriented leadership and team performance were mediated both by global climate (environment) and innovation climate. They also found that the effect change-oriented leadership had on team performance decreased when the global climate and innovation were controlled for. Furthermore, change-oriented leadership and team outcomes, group performance, and satisfaction were mediated by both global climate and innovation climate.

A study on nurses established that managers and their subordinates preferred a leadership style based on change and employee relations (Sellgren, Ekvall & Tomson, 2006). Detert and Burris (2007) found that change-oriented leadership was positively related to best performing employees and those speaking up. Shuck et al. (2010) reported that research indicates that engagement requires managers to play a vital role in modelling the climate of a workplace.

Ling (2016) found that change-oriented leadership and engagement were significantly and positively correlated. Moreover, amongst the three types of leadership behaviour,
change-oriented leadership was found to have the strongest correlation with engagement.

### 2.6.3 Consequences of Change-oriented leadership

Bettencourt (2004) found leadership to be a significant predictor of change-oriented behaviour whereas other literature demonstrated that leaders influence employees to develop new methods to work (Oldham & Cummings, 1996). Bettencourt’s (2004) study also illustrated a positive relationship between leadership and change-oriented OCB. In addition, change-oriented OCB was strongly and positively related with the quality of leader-member-exchange (LMX) (Bettencourt, 2004).

Leader behaviours can strongly influence employees’ feelings of hope (Thompson et al., 2015) which is one of the psychological capital dimensions. Other studies found that employees with higher PsyCap support effective organisational change and have the responsibility to adapt their behaviour according to new strategies dictated by management, even with the availability of fewer resources (Avey, Luthans & Mhatre, 2008).

Ortega et al. (2014) found psychological safety mediated the relationship between change-oriented leadership and team learning and, in turn, change-oriented leadership influenced team learning. Furthermore, they found the relationship between change-oriented leadership and team performance was mediated by both psychological safety and team learning.

A study by Golm (2009) investigated the relationship between transformational, transactional, and change-oriented leadership and the influence these constructs had on leadership effectiveness. Contrary to other studies, she found both transformational and transactional leadership were important to lead change; however, change-oriented
leadership had the least impact on leadership effectiveness. Additionally, transactional leadership had the strongest impact of all on leadership effectiveness.

A study by Alyusef and Zhang (2016) explored the impact of change-oriented leadership on voice behaviour and intention to quit. Their study proposed that change-oriented leadership was led by managerial openness and transformational leadership. Moreover, change-oriented leadership had a positive impact on voice behaviour and intention to quit. Although change-oriented leadership encourages employee voice, it decreases the intent to quit which, in return, provides employees with greater job satisfaction. Furthermore, the mediating effect of perceived issue of threat specifies that change-oriented leadership creates an environment of safety where employees can express their opinions freely.

After an extensive search through a variety of comprehensive databases (i.e. Libraries Worldwide) and the internet, the researcher could only find two studies in South Africa on change-oriented leadership linked to other variables (Bosman, 2003; Lourens, 2001).

2.6.4 Development of change-oriented leadership

Carter et al. (2010) proposed that leaders who have high-quality relationships with their employees manifest the change processes through high-quality relationships; leaders demonstrate the change processes required to encourage positive employee change consequences. Given the on-going changes within an organisation, it is important that employees have access to resources which includes continuous information and personal support from leaders. However, leaders require the support from employees to refine the changes and to achieve high levels of effort at work (Carter et al., 2010).

Kalyani (2017) noted that a team led by a change-oriented leader performs well with crisis management. It was further noted that change-oriented leaders react well to:
• unpredicted occurrences such as violence in the workplace or natural disaster;
• crisis by implementing the necessary measures to deal with it;
• valuable input from their employees or teams (Kalyani, 2017).

It is clear from the literature that a change-oriented leader is nearly always ready to try new ways and adjust his/her focus to meet new demands (Kalyani, 2017).

In addition to the advantages of being a change-oriented leader, there are also disadvantages. For example, making too many changes can leave employees confused and frustrated especially when making frequent changes in policies and procedures as well as in setting new goals. The demands of being a change-oriented leader requires one to be tuned into all the goals of the organisation in order to be ready and knowledgeable about changes and their implications (Kalyani, 2017).

Kalyani (2017) postulated that leaders should be change-oriented and that good leaders should be willing to learn and change with today’s global changes. Leaders should also ensure that team members keep up with change to prevent them from feeling overwhelmed and ultimately undermining leadership goals.
The literature has primarily concentrated on understanding change-oriented leadership and its effect on subordinate performance and satisfaction (Spreitzer et al., 1999). Spreitzer et al. (1999) focused on the relationship between psychological empowerment and the change-oriented elements of leadership including: innovativeness, upward influence, inspiring subordinates, and psychological empowerment. The results indicated that empowered supervisors were perceived as being more creative, had the ability to influence upwards, and were more inspired by their subordinates. Spreitzer et al. (1999) focused on the empowerment of the leader and how such empowerment influenced their change-oriented leadership. Kark, Shamir and Chen (2003) proposed that transformational leadership is correlated to followers’ empowerment. This is consistent with prior research findings indicating that transformational leadership influenced, and was positively related to, empowerment (Kark & Shamir, 2002).

Seibert et al. (2011) postulated that because leaders play a crucial role in shaping the work environment of their subordinates, any form of positive leadership behaviour has a positive effect on psychological empowerment. According to Spreitzer (1995) employees are more engaged when they display psychological empowerment and can thereby exercise control over their job. This is supported by Stander and Rothmann (2010) who also found that there was a practically significant relationship between the psychological empowerment dimensions. Their study found a positive and significant relationship between psychological empowerment, job satisfaction, and work engagement (Stander & Rothmann, 2010).

Given the above, there appears to be a link between leadership and empowerment; however, to the knowledge of the researcher, the relationship between change-oriented leadership and psychological empowerment (of the follower) has not yet been studied. Based on the notion that transformational leadership (which also includes elements of change-orientation) has a relationship with empowerment, it is proposed in the current
study that change-oriented leadership will have a significant positive relationship with psychological empowerment (Proposition 1).

According to Toor and Ofori (2010), PsyCap has increased its significance as an important construct not only in leadership research but also for both influence and leadership development. Toor and Ofori (2010) found PsyCap to be positively related to transformational leadership and also had positive relations with leadership outcomes as efficacy, extra effort, and satisfaction. Other research studies placed emphasis on the PsyCap of leaders. For instance, Luthans and Avolio (2003) hypothesised PsyCap to be an antecedent of authentic leadership and the development of followers’ PsyCap is a main contributor of authentic leadership (Luthans, Youssef, et al., 2007). This is supported by other studies (Gooty et al., 2009; Luthans, Youssef, et al., 2007) and in a South African context, du Plessis (2014) and Munyaka (2012) found that substantial relations between authentic leadership and PsyCap had been established. It is, therefore, proposed in the current study that a positive relationship exists between change-oriented leadership and PsyCap (Proposition 2).

Leadership has an important effect on workplace outcomes such as work engagement (Peterson et al., 2011). Employees feel assured about their future when they know that management possesses the right skills and talents to improve the productivity and growth of the organisation. The fact that employees can trust in managerial skills and abilities directly increases work engagement amongst employees (Spreitzer & Mishra, 2002). Furthermore, Schaufeli and Salanova (2007) noted that supervisors who coached their employees to establish goals, organise tasks, outline shortcomings, take an interest in career development, and offer guidance increased work engagement. Schaufeli and Salanova (2007) also found a positive relationship between authentic leadership and work engagement. Studies found that transformational leaders have a significant association with work engagement in South Africa (du Plessis 2014; Zhu, Avolio & Walumbwa, 2009), the Netherlands (Tim, Bakker & Xanthpoulou, 2011) and Portugal (Salanova, Lorente, Chambel & Martinez, 2011). Although the relationship between
change-oriented leadership and work engagement remains to be established, these findings support the reasoning that a relationship is likely to exist. (Proposition 3).

Studies indicate there is a positive relationship between engagement and OCB (Bakker & Demerouti, 2007; Babcock-Roberson & Strickland, 2010) and also in a South African context (Harris, 2012). The researcher could not find any studies which explored the relation between work engagement and change-oriented OCB and, particularly not in a South African context. As a result, this study proposes that work engagement will, indeed, have a positive relationship with change-oriented OCB (Proposition 4).

Oktug (2014) found psychological empowerment contributed to positive organisational outcomes since it is perceived to be one of the significant features of organisational life. Empowered employees are inspired and driven in their work, resulting in extra effort to realize work-related objectives (Kanter, 1977). Cho, Laschinger and Wong (2006) revealed that empowerment is a predictor and increases levels of engagement. Their study revealed that none of the four psychological empowerment dimensions mediated the relationship between organisational identification and work engagement. Nonetheless, self-determination was the strongest predictor of work engagement. De Klerk (2013) found leadership empowerment behaviour had a statistically significant relationship with psychological empowerment and work engagement. Similar results were obtained in Bhatnagar (2012) and De Villiers and Stander (2011) that psychologically empowered employees are more engaged and devoted to their organisation and are thereby less likely to leave. De Klerk (2013) established that psychological empowerment acted as a mediator between leadership empowerment behaviour and work engagement.

Paek, Schuckert, Kim and Lee (2015) found a significant and positive relationship between PsyCap and work engagement. It was also shown that work engagement is a positive consequence of PsyCap. Du Plessis (2014) found PsyCap mediated the
relationship between authentic leadership and work engagement. This was supported by Wang, Wang, Sui, Luthans, Wang, & Wu (2014) and Zhong, Li, Liu and Chen, (2016). PsyCap appears to be instrumental in facilitating the influence of a positive organisational context on various desirable outcomes (Youssef & Luthans, 2012). In a meta-analysis by Avey et al. (2011) it was shown there is a significant positive relationship between PsyCap and OCB whereby individuals who have positive PsyCap will be more inclined to go the extra mile and display helping behaviours aimed at the organisation, other employees, or both. However, no literature was found stating that change-oriented leadership indirectly affects change-oriented OCB through psychological capital and work engagement.

A few studies examined the impact leaders have on change-oriented OCB which included leader-member exchange (Vigoda-Gadot & Beeri, 2011) and supporting leaders (Choi, 2007). More recently, Lopez-Dominguez et al. (2013) focused on transformational leadership and its impact on change-oriented OCB. Furthermore, Lopez-Dominquez et al. (2013) found development leadership (leadership centred on employee’s development) was more effective in promoting change-oriented OCB as opposed to supportive leadership (focused on taking into consideration employee’s needs and being more supportive). These results are consistent with previous findings which confirmed the relationship between leadership and affiliative OCB (Wang et al., 2014). Li et al. (2016) found a link between empowering leadership and change-oriented OCB, which indicates the critical role leaders play in encouraging employees’ change-oriented behaviours. These results have been supported by earlier studies (Chiaburu, Lorinkova & Van Dyne, 2013; Choi, 2007). Based on these findings there is a relationship between leadership and change-oriented OCB.

Given the above sections, the researcher could not find any literature proving that change-oriented leadership indirectly affects change-oriented OCB through psychological empowerment, psychological capital, and work engagement, and, therefore, it is proposed that these relationships are tested (Proposition 5 & 6).
2.8 PROPOSED THEORETICAL MODELS AND PROPOSITIONS

It is hypothesised that change-oriented leadership will have a significant influence on psychological empowerment, PsyCap and work engagement, and work engagement, in turn will impact change-oriented OCB. It is also hypothesised that the following tentative models of sequential relationships between the variables can be constructed and tested. The consolidated structural model for the present study is based on the theoretical support from the literature review and is shown in Figure 2.4.

![Proposed theoretical framework of the relationship between change-oriented leadership, psychological empowerment, PsyCap and work engagement and change-oriented OCB.](http://etd.uwc.ac.za/)

**Figure 2.4** Proposed theoretical framework of the relationship between change-oriented leadership, psychological empowerment, PsyCap and work engagement and change-oriented OCB.

Based on the literature review and the proposed theoretical model, the following propositions were developed and are presented in Table 2.4.
### Table 2.4 Propositions to be tested in the present study

<table>
<thead>
<tr>
<th>Number</th>
<th>Propositions to be tested</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Proposition 1: Perceived change-oriented leadership relates positively to psychological empowerment experienced by the employee</td>
</tr>
<tr>
<td></td>
<td>Proposition 2: Perceived change-oriented leadership relates positively to psychological capital experienced by the employee</td>
</tr>
<tr>
<td></td>
<td>Proposition 3: Perceived change-oriented leadership relates positively to work engagement experienced by the employee</td>
</tr>
<tr>
<td></td>
<td>Proposition 4: Employee work engagement relates positively to change-oriented OCB displayed by the employee</td>
</tr>
<tr>
<td></td>
<td>Proposition 5: Perceived change-oriented leadership indirectly affects change-oriented OCB through psychological capital.</td>
</tr>
<tr>
<td></td>
<td>Proposition 6: Perceived change-oriented leadership indirectly affects change-oriented OCB through psychological empowerment.</td>
</tr>
<tr>
<td></td>
<td>Proposition 7: A theoretical framework of the relationship between change-oriented leadership, psychological empowerment, PsyCap, work engagement and change-oriented OCB can be shown through structural equations modelling to be a well-fitting model.</td>
</tr>
</tbody>
</table>

The propositions outlined in Table 2.4 above will be tested based on the outcome of the data analyses in Chapter 3.
2.9 CONCLUSION

Based on the discussion of the literature, it is clear that employees who are a part of an organisation are constantly confronted with change and adjustment to such change requires the right skills, training, and resources if employees are to perform their duties as required by the organisation (Schein, 2008; Woodman & Dewett, 2004, 2012). In this study, a majority of the leadership sample fell in the middle management category. Raelin and Cataldo, (2011) noted that the manner in which middle management participate in change has evolved over the years. Although these middle managers have changed over time from resistors to facilitators, they often remain ineffective due to executive constraints. It is crucial to emphasise the important role middle managers play in shaping the system during change; if they lack empowerment to fill an intermediary role they can also be the main source of failure.

Leadership and psychological capital have been extensively studied over the past few decades. However, psychological empowerment, work engagement, and change-oriented OCB are fairly new constructs and remain independent. Empirical research is limited linking these different variables.

This chapter focused on the history and definitions of each variable. The literature discussed the antecedents, consequences, and mediating effects of each construct. Lastly, the chapter highlighted and identified relationships between change-oriented leadership and psychological empowerment, PsyCap, work engagement, and change-oriented OCB. Founded on the literature, a theoretical framework was drawn to explain the existing and influencing relationships. The framework was developed to illustrate various propositions related to this research which included direct and indirect relationships between variables. This theoretical framework signified the basis for seven important propositions which will be discussed in Chapter 3 and 4.
CHAPTER 3
RESEARCH METHODOLOGY

3.1 INTRODUCTION

The main purpose of this research is to determine whether changed-oriented leadership will have a significant influence on psychological empowerment and PsyCap of the respondents in the sample which, individually and combined, will explain a significant part of the variance in work engagement and change-oriented OCB. In this chapter, the researcher will explain the research design and the sampling technique that were used. Furthermore, the measuring instruments, including the biographical questionnaire, will be discussed. This will follow by a discussion regarding the manner in which the data was gathered, the ethical considerations of the research, and the data analysis employed in this study. Lastly, the chapter will deliberate the limitations to the research methodology and will follow with a concluding statement.

3.2 RESEARCH DESIGN

The research design utilized a quantitative approach using both surveys and structural equations modelling. The data were analysed and presented in graphs and tables and interpreted thereafter. A quantitative study allowed the researcher to report representative statistics for the population under investigation. The survey was constructed from pre-existing, standardised measuring instruments with the intention of providing evidence of relationships between constructs. A paper and pencil format of the survey was distributed whereby respondents could independently complete the questionnaires. The researcher also held group sessions in a classroom and explained the reason for this research after which respondents were given the opportunity to voluntarily complete the questionnaire. The main requirement to participate was that the respondents had to have an adequate level of English literacy since the questionnaires were presented in English.
3.3 POPULATION AND SAMPLE

The study was carried out in a South African manufacturing organisation based in the Western Cape. This particular industry has been impacted by the decline in the South African economy primarily due to cheaper materials being imported from China as opposed to the high pricing of materials across various sectors in South Africa. Other reasons included the lack of volumes to achieve economies of scale, the aging infrastructure of capital equipment, investments and high levels of capital required, and limited use of technology (Davies, 2016). It is clear regarding the struggling industry that organisations need to leverage key resources in order to grow the industry with respect to both increased demand and new technology, increase competitiveness, and to build human capability (Davies, 2016). At the time the data was collected, the organisation employed 1063 employees comprised of labourers, qualified artisans, administrative staff, and middle and senior management.

The study made use of probability sampling meaning that any of the possible subsets within the population had an equal opportunity to be chosen. There are a number of advantages for using probability sampling including:

1) statistical inferences are possible;
2) to achieve a representative sample;
3) to minimize sampling bias. One way to overcome the challenges of probability sampling is to use a large sample in order to eliminate the bias;
4) to select units using probabilistic methods, and
5) meeting the criteria of probability sampling (Kalton, 1983).

Probability sampling also has disadvantages which include:

1) Greater complexity as opposed to non-probability sampling;
2) Time to collect data takes longer, and.
3) It is more expensive than non-probability sampling (Dudovskiy, 2016). One way to reduce the costs is to use electronic surveys which saves money and time.

Sekaran (2003) suggested that when the sample size is larger than thirty and less than five hundred, it is suitable for most research. Thus, it is the sample size and sample design that is important to determine the representation and generalisability. However, Hair, Black, Babin and Anderson (2010) suggested that when dealing with a large number of constructs a minimum sample of 500 is required. The sample size of this study was well above the recommended requirement of 500.

All employees within the organisation were considered for the study. Furthermore, this potential group of 1063 respondents was viewed to be an acceptable sample size to conduct confirmatory factor analysis (CFA) and structural equation modelling (SEM) (Bagozzi & Yi, 2012). After gathering the data, 813 responses were recorded. Fifty-nine of the questionnaires could not be used as they had more than 50% of the information missing. In addition, 18 of the questionnaires had a few items missing and thus, had to be excluded from the sample. Therefore, the survey response rate of usable responses was calculated as 71% ($N = 736$).

Descriptive statistics for respondents’ gender is presented in Table 3.1.
Table 3.1 Gender of Respondents

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>Male</td>
<td>682</td>
<td>92.7</td>
<td>92.7</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>54</td>
<td>7.3</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>736</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Missing</td>
<td>System</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>736</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Of the 736 respondents, 682 (92.7%) were male and 54 (7.3%) were female. The male dominated response is typical in the manufacturing industry in South Africa. This is due to the physical and heavy duty work required as well as the technical qualifications and skills needed for the job.

It can be seen from Table 3.2 below that the single largest age group of the respondents were in the 26 to 35-year-old range which comprised 239 (32.5%) of the respondents overall. The second largest age group was in the 36 to 45-year-old range, comprising 222 (30.2%) of the respondents. The third highest was in the 46 to 65-year-old range, comprising 216 (29.3%) of the respondents. The least number of the respondents (7.5%) were in the younger age group of 18 to 25 year-old and totalled 55. The missing data represented 4 (0.5%) of the respondents’ questionnaires.
Table 3.2 Age group of Respondents

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-25 years</td>
<td>55</td>
<td>7.5</td>
<td>7.5</td>
<td>7.5</td>
</tr>
<tr>
<td>26-35 years</td>
<td>239</td>
<td>32.5</td>
<td>32.7</td>
<td>70.5</td>
</tr>
<tr>
<td>36-45 years</td>
<td>222</td>
<td>30.2</td>
<td>30.3</td>
<td>37.8</td>
</tr>
<tr>
<td>46-65 years</td>
<td>216</td>
<td>29.3</td>
<td>29.5</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>732</td>
<td>99.5</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Descriptive statistics for respondents’ educational level are presented in Table 3.3.

The single largest group of the respondents with respect to the educational level held a Grade 12 certificate representing 315 (42.8%) of the respondents overall. The second largest group with 219 (29.7%) of the respondents had lower than Grade 12. This was followed by 123 (16.7%) of the respondents who had a Trade Test Certificate. Following this group 50 (6.8%) had a Diploma and 24 (3.3) had a University degree. The smallest group of 2 (0.3%) had a Master’s Degree. Data was missing from 3 (0.4%) from the respondents’ questionnaires.
Table 3.3 Education level of Respondents

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower than Grade 12</td>
<td>219</td>
<td>29.7</td>
<td>29.9</td>
<td>29.9</td>
</tr>
<tr>
<td>Grade 12</td>
<td>315</td>
<td>42.8</td>
<td>43.0</td>
<td>82.9</td>
</tr>
<tr>
<td>Trade Test/Certificate</td>
<td>123</td>
<td>16.7</td>
<td>16.8</td>
<td>99.7</td>
</tr>
<tr>
<td>Diploma</td>
<td>50</td>
<td>6.8</td>
<td>6.8</td>
<td>36.7</td>
</tr>
<tr>
<td>University degree</td>
<td>24</td>
<td>3.3</td>
<td>3.3</td>
<td>40.0</td>
</tr>
<tr>
<td>Master’s Degree</td>
<td>2</td>
<td>.3</td>
<td>.3</td>
<td>100.0</td>
</tr>
<tr>
<td>Missing system</td>
<td>3</td>
<td>.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Total</td>
<td>736</td>
<td>100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Descriptive statistics for respondents’ language are presented in Table 3.4 below. Since the respondents spoke different languages it was important to understand the level of English within the sample. The majority of employees spoke Afrikaans which comprised 510 (69.3%) of the respondents. The second highest language spoken was English which comprised 167 (22.7%) of the respondents. Other languages spoken as their first language included Xhosa which represented 41 (5.6%) of the respondents and Zulu which included only 6 (0.8%) of the respondents. Other languages which were spoken but not identified included 9 (1.2%) of the respondents. Data was missing from 3 respondents’ questionnaires.
Table 3.4 Language of Respondents

<table>
<thead>
<tr>
<th>Language</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>English</td>
<td>167</td>
<td>22.7</td>
<td>22.8</td>
</tr>
<tr>
<td></td>
<td>Xhosa</td>
<td>41</td>
<td>5.6</td>
<td>5.6</td>
</tr>
<tr>
<td></td>
<td>Afrikaans</td>
<td>510</td>
<td>69.3</td>
<td>69.6</td>
</tr>
<tr>
<td></td>
<td>Zulu</td>
<td>6</td>
<td>.8</td>
<td>.8</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>9</td>
<td>1.2</td>
<td>1.2</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>733</td>
<td>99.6</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The single largest group of the respondents 214 (29.1%) had been working less than 1 year to a maximum of 5 years in the organisation, ranging between 1 to 5 years. Other respondents had tenure between 6 to 10 years in the organisation and comprised 145 (19.7%) respondents. A total of 142 (19.3%) had been in the organisation 11 to 15 years. Those who remained 16 to 20 years included 86 (11.7%) of the respondents. As the number of years increased, the number of employees who remained in the organisation became less with 37 (5%) remained 21 to 25 years; 42 (5.7%) remained 26 to 30 years and 20 (2.7%) remained 31 to 35 years. Data was missing from 2 (0.3%) of the respondents’ questionnaires.

Descriptive statistics for respondents’ age group are presented in Table 3.5 below.
Table 3.5 Organisational tenure of Respondents

<table>
<thead>
<tr>
<th>Valid</th>
<th>Less than 1 year</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>48</td>
<td>6.5</td>
<td>6.5</td>
<td>6.5</td>
</tr>
<tr>
<td>1-5 years</td>
<td></td>
<td>214</td>
<td>29.1</td>
<td>29.2</td>
<td>35.7</td>
</tr>
<tr>
<td>6-10 years</td>
<td></td>
<td>142</td>
<td>19.3</td>
<td>19.3</td>
<td>55.0</td>
</tr>
<tr>
<td>11-15 years</td>
<td></td>
<td>145</td>
<td>19.7</td>
<td>19.8</td>
<td>74.8</td>
</tr>
<tr>
<td>16-20 years</td>
<td></td>
<td>86</td>
<td>11.7</td>
<td>11.7</td>
<td>86.5</td>
</tr>
<tr>
<td>21-25 years</td>
<td></td>
<td>37</td>
<td>5.0</td>
<td>5.0</td>
<td>91.6</td>
</tr>
<tr>
<td>26-30 years</td>
<td></td>
<td>42</td>
<td>5.7</td>
<td>5.7</td>
<td>97.3</td>
</tr>
<tr>
<td>31-35 years</td>
<td></td>
<td>20</td>
<td>2.7</td>
<td>2.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>734</td>
<td>99.7</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Missing system</td>
<td></td>
<td>2</td>
<td>.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>736</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The respondents were asked about their occupational role within the organisation and a majority of them fell within the Operator level, which comprised 436 (59.2%) of the respondents. The second largest occupational category was Artisans, which comprised 138 (18.8%) of the respondents. Middle management totalled 66 (9%) Team Leaders and 26 (3.5%) General Foremen. Professionally qualified and administration both consisted of 26 (3.5%) of the respondents. Management was 9 (1.2%) and Senior Management consisted of 2 (0.3%) which was the smallest in the occupational category.
Missing data from respondents’ questionnaires comprised 7 (1.0%).

Descriptive statistics for respondents’ occupational categories are presented in Table 3.6 below.

Table 3.6 Occupational category of Respondents

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid General</td>
<td>26</td>
<td>3.5</td>
<td>3.6</td>
<td>3.6</td>
</tr>
<tr>
<td>Foreman</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operator</td>
<td>436</td>
<td>59.2</td>
<td>59.8</td>
<td>63.4</td>
</tr>
<tr>
<td>Senior</td>
<td>2</td>
<td>.3</td>
<td>.3</td>
<td>63.6</td>
</tr>
<tr>
<td>Management</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Team Leader</td>
<td>66</td>
<td>9.0</td>
<td>9.1</td>
<td>72.7</td>
</tr>
<tr>
<td>Professionally</td>
<td>26</td>
<td>3.5</td>
<td>3.6</td>
<td>76.3</td>
</tr>
<tr>
<td>qualified</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management</td>
<td>9</td>
<td>1.2</td>
<td>1.2</td>
<td>77.5</td>
</tr>
<tr>
<td>Artisan</td>
<td>138</td>
<td>18.8</td>
<td>18.9</td>
<td>96.4</td>
</tr>
<tr>
<td>Administration</td>
<td>26</td>
<td>3.5</td>
<td>3.6</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>729</td>
<td>99.0</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Missing system</td>
<td>7</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>736</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3.4 MEASURING INSTRUMENTS

Based on the literature review, five standardised measuring instruments were employed to gather the data. They were found to be reliable, valid, and applicable in previous empirical studies and, hence, were chosen for the purposes of this study. These questionnaires will be discussed in detail below.

3.4.1 Biographical Questionnaire

A biographical questionnaire was developed to determine characteristics of the respondents. The questions requested information with respect to gender, age, organisational tenure, level of education, language, department and occupational category within the organisation. The results of the biographical questionnaire were reported and discussed in the preceding section 3.3.

3.4.2 The Utrecht Work Engagement Scale (UWES)

The Utrecht Work Engagement Scale (UWES) was developed by Schaufeli and Bakker (2004). The original UWES questionnaire was 17-items; however, the researcher used the shortened version of 9-items (UWES-9) to measure work engagement in this study. The UWES-9 assesses three dimensions, namely: vigour, dedication, and absorption, which consists of three items each. The items on each scale were rated on a 7-point Likert scale ranging from 0 = “Never” to 7 = “Always”. Examples of these questions are “At my work, I feel bursting with energy” (vigour), “I am enthusiastic about my job” (dedication), “I feel happy when I am working intensely” (absorption).

The questionnaire consisting of the 17-item version has illustrated both satisfactory validity and reliability in a wide range of samples in numerous countries, such as
Finland (Hakanen, 2002), Spain (Schaufeli et al., 2002), the Netherlands (Schaufeli & Bakker, 2004; Schaufeli et al., 2002), Japan (Shimazu, Schaufeli, Kosugi, Suzuki, Nashiya & Kato, 2008), Greece (Xanthopoulou, Bakker, Kantas & Demerouti, 2012), China (Yi-Wen & Yi-Qun, 2005), and including South Africa (Field & Buitendach, 2011; Simons & Buitendach, 2013; Storm & Rothmann, 2003). The internal consistency of the UWES has constantly reported a high Cronbach alpha which ranged from $\alpha = 0.85$ to $\alpha = 0.92$ (Schaufeli, Bakker & Salanova, 2006). A South African study by Storm and Rothmann (2003) obtained reliability coefficients as follows: vigour: $\alpha = 0.78$, dedication: $\alpha = 0.89$ and absorption was $\alpha = 0.78$. Field and Buitendach (2011) reported a reliability coefficient of $\alpha = 0.96$.

Similar reliability results were achieved for the UWES-9 with reliability coefficients varied from $\alpha = 0.81$ to $\alpha = 0.85$ for vigour, from $\alpha = 0.83$ to $\alpha = 0.87$ for dedication, and from $\alpha = 0.75$ to $\alpha = 0.83$ for absorption (Hakanen, Schaufeli & Ahola, 2008). Only a limited number of studies in the South African context used the UWES-9. However, Buitendach, Bobat, Muzvidziwa and Kanengoni (2016) found reliability coefficients as follows: dedication ($\alpha = 0.78$); absorption ($\alpha = 0.80$) and vigour ($\alpha = 0.87$) and De Bruin and Henn (2013) for the total UWES-9 ($\alpha = 0.92$).

Furthermore, CFA supports the three-dimensional structure of the 17-item instrument (Schaufeli et al., 2006). The UWES questionnaire can, however, also be considered as a one-dimensional construct. Schaufeli and Bakker (2004) reported high correlations between the dimensions of the UWES. Although the questionnaire comprises three dimensions, it can be collapsed into one factor should such a configuration provide a better fit to the data. In a South African study, Storm and Rothmann (2003) found the one factor model fit the statistics better. Their model was redefined after deleting items 3, 11, 15 and 16 and then based on the 13-item revision. Confirmatory factor analysis in the study by De Bruin and Henn (2013) found that the bi-factor model was a more superior fit to that of the one-factor and three-factor model.
3.4.3 Change-oriented OCB

The change-oriented OCB questionnaire was developed by Morrison and Phelps (1999). They developed a ten-item scale which was validated through a multi-stage process. They established a list of typical change-oriented employee behaviours using part-time and full-time MBA students. In separate empirical studies, Morrison and Phelps (1999) evaluated the internal consistency and convergent and discriminant validity which corresponded to the traditional OCB dimensions. Due to the low item-to-total correlation (<0.40), they removed one item. Albeit, the reliability coefficient of the remaining items was still high at $\alpha = 0.92$. Later, Bettencourt (2004) administered the change-oriented OCB questionnaire to retail employees and their respective managers and the average of these responses on an item by item basis was used to represent the change-oriented OCB construct.

The present study employed the 9-item questionnaire which was scored on a 6-point Likert scale from 1 = “strongly disagree” to 6 = “strongly agree”. Examples of some of the items asked are (1) “I try to adopt improved procedures for doing the job”, (2) “I try to make constructive suggestions for improving how things operate within the organisation”, (3) “I try to introduce new work approaches to improve efficiency”.

Morrison and Phelps’ (1999) found the discriminant validity for the change-oriented OCB variable as correlations among the four latent constructs used in their study were significantly less than 1.0. This was supported by Bettencourt (2004). Furthermore, Li, Liu, Han and Zhang (2016) proposed a four-factor model (empowering leadership, thriving at work, autonomy orientation and change-oriented OCB) determining the discriminant validity showed a satisfying fit ($\chi^2 (183) = 455.8, p < 0.01; \text{CFI} = 0.90; \text{TLI} = 0.89; \text{RMSEA} = 0.09$); whilst the three-factor, two-factor and one-factor models did not.
3.4.4 Psychological Capital Questionnaire (PCQ)

The original 24-item PCQ was developed by Luthans, Avolio and Avey (2007). Researchers are increasingly using the shorter 12-item version as opposed to the widely recognised PCQ-24, which was used in almost all PsyCap research (Luthans & Youssef-Morgan, 2017). This study used the shortened 12-item version (Avey, Avolio, Luthans, 2011a). The items were responded to a 6-point Likert scale ranging from 1 = “strongly disagree” to 6 = “strongly agree”. The instrument measured four dimensions, namely: “I feel confident presenting information to a group of colleagues” (self-efficacy); “If I should find myself in a jam at work, I could find many ways to get out of it” (hope); “I always look on the bright side of things regarding my job” (optimism) and “I usually take stressful things at work in stride” (resilience). Each of the dimensions are measured by three items.

All four of these subscales were adapted from previous studies which were verified and used in recent research (Luthans & Youssef-Morgan, 2017). The “hope” items were adapted from Snyder et al. (1996), “optimism” from Scheier and Carver (1985), “self-efficacy” from Parker (1998) and “resilience” from Wagnild and Young (1993). The four subscales were calculated by adding scores on a particular subscale and then dividing the sum by the number of items involved in that subscale. With respect to the original 24-item measurement, the items 13, 20 and 23 were reverse scored.

The 24-item questionnaire demonstrated adequate internal reliability for each subscale: efficacy (α = 0.92); hope (α = 0.87); resilience (α = 0.83); optimism (α = 0.78) and the overall PCQ (α = 0.95) (Avey et al., 2010). For the 12-item PCQ, Avey et al. (2011a) found the internal reliability to be α = 0.70. Additionally, Li et al. (2006) tested the adaptability of the scale under Chinese culture and both CFA and internal consistency of the scale was good. Qadeer and Jaffery (2014) later confirmed and showed that the alpha coefficient for the 12-item scale was α = 0.823 and in a South African study showed α = 0.89 (Wernsing, 2014).
The PCQ has demonstrated acceptable reliability in a South African context, whereby Simons and Buitendach (2013) found a coefficient for the total PsyCap of $\alpha = 0.91$. Görgens-Ekermans and Herbert (2013) reported a reliability coefficient of $\alpha = 0.70$ for the dimensions of hope and efficacy. Both studies utilised the 24-item version of the questionnaire. Research therefore showed that the PCQ had acceptable reliability in both a South African and international context.

Rather than focusing on each dimension of PsyCap, there is sufficient research which supports both conceptually and empirically examining PsyCap as a core construct (Luthans, Youssef, et al., 2007; Luthans, Avolio, et al., 2007; Luthans, Norman, Avolio, & Avey, 2008). It was further confirmed in South African studies (Görgens-Ekermans & Herbert, 2013; Simons & Buitendach, 2013) that the original factor structure of the PCQ demonstrated good fit. The PCQ-12 measurement has been supported across numerous cultures and, similar to the PCQ-24, has been readily adapted to other contexts such as health, relationships, and overall life in general (Luthans & Youssef-Morgan, 2017). Permission was granted by MindGarden to make use of the PCQ-12 for this study.

### 3.4.5 Psychological Empowerment Questionnaire (PEQ)

The psychological empowerment questionnaire (PEQ) was developed by Spreitzer (1995) who also validated the four dimensions contained therein. The questionnaire consists of 12-items and each item is scored on a 6-point Likert scale from 1 = “strongly disagree” and 6 = “strongly agree”. Examples of the items include: “My job activities are personally meaningful to me” (meaning), “I am confident about my ability to do my job” (competence), “I have significant autonomy in determining how I do my job” (self-determination) and “My impact on what happens in my department is large” (impact). Spreitzer’s (1995) study found the Cronbach alpha reliabilities to be adequate on all four scales (meaning, $\alpha = 0.86$; competence, $\alpha = 0.81$; self-determination, $\alpha = 0.82$;
impact, $\alpha = 0.88$).

A South African study by Stander and Rothmann (2009) established the construct validity of the PEQ by using structural equation modelling. Their research found that a four-factor structure fitted the data best and the reliability coefficients of the PEQ varied from $\alpha = 0.81$ (competence) to $\alpha = 0.89$ (meaning). Contrary to Stander and Rothmann’s (2009) findings, Seibert et al. (2011) found little evidence of discriminant validity between the four psychological empowerment sub-dimensions. Their study provides support for the use of a uni-dimensional psychological empowerment construct.

### 3.4.6 Change-oriented Leadership

This study used one dimension of the “Managerial Practices Survey (TRCQ-15G)”, which was designed by Yukl et al. (2002). The original questionnaire consisted of three scales, namely: task, relation, and change-oriented leadership. Earlier studies demonstrated the appropriate psychometric characteristics of this questionnaire (Gil et al., 2005; Yukl, 1998; Yukl et al., 2002). For the purposes of this study, the researcher used the change-oriented leadership scale only. The questionnaire consisted of six items and was scored on a 6-point Likert scale with 1 = “strongly disagree” and 6 = “strongly agree”. The emphasis of the response refers to magnitude rather than the frequency. Some example items of the subscales are, “My manager proposes new and creative ideas for improving products, services, or processes” and “My manager is confident and optimistic when proposing a major change”.

A study by Ortega et al. (2014) found change-oriented leadership measurement consisted of five subscales with four items each. The reliability for the total scale reported was $\alpha = 0.94$. (Gil et al., 2005). Additionally, Faghihi and Allameh (2012) and Yukl (2004) found reliability coefficients for the six-item questionnaire (as also
utilised in the present study) above the acceptable level of 0.70.

3.5 PROCEDURE

The following sections of this chapter elaborate on the data gathering and how the data was analysed. The section will also discuss the ethical considerations to ensure that the reliability of the research process was controlled with integrity and care.

3.5.1 Data gathering

Before the data gathering took place, permission was requested from the three Directors of the organisation to conduct the study. The proposal together with the questionnaire was presented to the University of the Western Cape Research Ethics Committee and the proposal was accepted. The researcher also provided the proposal together with the questionnaire to the Chief Financial Officer, who was one of the Directors, for his perusal and ultimate understanding of the study. Permission was granted from the Directors as it was seen to be beneficial to the organisation to better understand areas of concern and, more specifically, to have a full understanding of how management was operating within the organisation.

The study used a paper and pencil format of the questionnaire since a majority of the population did not have access to email. Attached to the questionnaire was a consent page which required the participant to sign that they voluntarily completed the questions for ethical purposes. The support staff was given a questionnaire and asked to complete it on a voluntary basis. Completed questionnaires were handed to the HR representative to be placed in a file. All questionnaires were completed anonymously, however, the consent page was placed in a different file. Further permission was granted by the CEO to send groups of employees to the training centre to complete the questionnaires. Since employees were not allowed to leave their workstations, and to ensure continuous production, the manager allowed five to ten employees at a time to
leave their workstations and go to the training centre to voluntarily complete the questionnaire.

Once the group was in the classroom, the facilitator explained that the reason for their attendance was to complete a research questionnaire for both academic and organisational purposes. Since the organisation was going through management changes, there was speculation about employees being negative toward management and the impending changes. Indeed, management wanted to determine whether employees were negative or in a positive state of mind. Completing surveys was not uncommon to the employees as they had done this in previous years. Shop floor employees were informed they had to complete the consent form and that completing the questionnaire was completely voluntary. The employees were allowed to leave the room and return back to their work stations if they did not want to participate. Those who remained behind were requested to place the signed consent forms in one box and completed questionnaire were placed in another.

Various group sessions were held over a period of one month. A total of 813 employees attended the sessions and 833 questionnaires were collected, including from support staff. However, only 736 questionnaires were usable for the study. One disadvantage during the process was the reluctance of the support staff’s participation in the research project. The support staff included administration, professionally qualified, management, and senior Management. More motivation was required for them to understand the benefits of the study both to the organisation and the contribution of the results to the researcher. After explaining to the staff at least 3.5% participated in the study. In the past, when employees completed these surveys, there were two main issues that caused their reluctance to participate. Firstly, the organisation did not report the results to the employees and, secondly, when interventions for improvement were suggested nothing was done to improve.
3.5.2 Ethical Considerations

Consent to carry out this study, had to be granted by the University of the Western Cape’s (UWC) Higher Degrees Committee and the Human and Social Sciences Ethics Committee. Firstly, an application to register this research project was made to the Department of Industrial Psychology for approval of the topic and the use of the measuring instruments. Thereafter, the Economic Management Sciences Faculty of Higher Degrees Committee had to provide approval of the project and ethical considerations related to the study. Lastly, the research project went to the Senate of Higher Degrees and Research and Ethics Committee for approval on a University level. The project was approved and registration number 15/6/51 was issued by the UWC Research office. After consent was granted by UWC, the researcher obtained permission from the organisation where the study was undertaken.

To ensure ethical practice, the researcher obtained consent from each participant before they participated in the study. This is in line with the Ethical Code of Conduct of the Health Professionals Council of South Africa (HPCSA). The information page invited employees to participate in the research study and the study procedure, risks, benefits, and compensation were all explained. The consent form further informed the participants about the confidentiality and anonymity of the questionnaire and lastly explained that should there be any concerns or questions the contact details of both the researcher, the supervisors, and the supervising department at the University of the Western Cape were given.

The measuring instruments used in the consolidated questionnaire were both reliable and valid and had been used in similar studies which yielded reliable results. The researcher had to obtain permission from Mind Garden for the use of the PsyCap questionnaire. The researcher was not directly involved in the group sessions and, therefore, any possible bias or influence was removed from the completion or the voluntary process of participation. A separate process was followed for the
organisation whereby the data was captured onto an online survey to generate a report. The findings, together with interventions indicating where improvements were needed, were presented to the Directors only. A summary of the results was also shared with management and union representatives. The HR department was responsible for communicating the findings to all other employees; however, they did not do so as indicated in this particular study.

### 3.5.3 Data analysis

The data was collected and coded by using the Statistical Program for Social Science (SPSS, version 24). The data was then cleaned and checked for errors. Hair et al. (2010) noted that data techniques concentrate on the relationships, significance of group membership, and structure. The technique employed when analysing the data was dependent on the research objectives guided by several propositions. The researcher used the Spearman’s rank correlation coefficient to determine the relationships between all the variables. The following subdivisions will provide further details on the data analysis techniques used to test propositions as outlined in Chapter 2. Lastly, the researcher discusses the reliability and validity of the questionnaires, as well as CFA and SEM using partial least squares (PLS) path modelling.

#### 3.5.3.1 Reliability analysis

The reliability of the measuring instruments was confirmed by the Cronbach’s alpha coefficients which were calculated for each scale and subscale. This was to evaluate the internal consistency between the items which, in turn, measured the theoretical model. The main objective of this procedure was to confirm that the measuring instruments were reliable for the current sample in a South African context. The acceptable levels for reliability of the scales and sub-scales are 0.70 and above, whereas
anything below 0.60 indicates a lack of reliability (Nunnally, & Bernstein, 1994). However, Moss, Prosser, Costello, Simpson, Patel, Rowe, Turner and Hatton (1998) have supported the view that Cronbach alpha value above 0.6 is generally acceptable.

3.5.3.2 Confirmatory factor analysis

The study employed confirmatory factor analysis (CFA) to confirm the structure of the instruments when used on a South African sample. Reinard (2006) defined CFA as a statistical process to examine how best the measured constructs represent the smaller number of constructs. Furthermore, CFA also confirms the theoretical structure of the construct. However, if the results of CFA do not indicate a good fit of the data, then explanatory factor analysis (EFA) is employed. EFA provides information about the numbers of factors required to represent the data. CFA will be executed in the Mplus, Version 7 developed by Muthen and Muthen (2012).

3.5.3.3 Correlation

The Spearman’s rank, \( r_s \) is a non-parametric correlation coefficient, which measures the relationship between variables at the ordinal level. It provides a measure of how closely two sets of rankings agree with each other. The value of \( r_s \) ranges from -1 to +1 (Reinard, 2006). If the value is closer to +1, it is a positive correlation when the variable increases the other increases as well. A negative relationship is closer to -1 and when the variable increases the other decreases. A correlation coefficient of 0 indicates no relationship between the variables.
3.5.3.4 Goodness-of-fit

This study used several fit indices to evaluate the goodness-of-fit for each of the constructs. Goodness-of-fit is the degree to which the observed matrix fits the sample matrix. These fit indices are numerically based and indicate how well the model fits the data. The following indices in this study were executed using Mplus are as follows:

1. the comparative fit index (CFI);
2. the standardised root mean residual (SRMR) and the root means square error of approximation (RMSEA), and
3. absolute fit indices, including the Satorra-Bentler Scaled chi-square (S-B-X²) divided by degrees of freedom, which is the test of absolute fit of the model (Hair, Black, Babin & Andersen, 2010).

3.5.3.5 Structural Equation modelling (SEM)

Lastly, SEM was employed to examine the proposed theoretical model and to evaluate the relationship between the variables explored in this study. When considering the use of SEM there are two important factors to consider: (i) the important role that empirical findings and theory play in conceptualising the hypothesised model, and (ii) the extent to which the sample data satisfies the proposed hypothesised model (Schumacker & Lomax, 2010).

There are two approaches to SEM. These are known as:

a. Covariance-based SEM (CB-SEM), (hard-based modelling), which emphasises the testing of a theory; and

b. Variance-based approach to SEM (e.g. partial least squares modelling) (PLS-SEM) known as soft modelling. This focuses on the dependent
variables explained by independent ones. The purpose of PLS-SEM is to explore and predict (Henseler, Ringle, & Sinkovics, 2009).

The advantage of SEM is that it can test a series of dependent relationships simultaneously. Therefore, SEM is mostly beneficial in testing theories that comprise multiple equations consisting of dependence relationships. The researcher decided to use the variance-based approach to SEM to evaluate the structural model.

3.5.3.6 Evaluating the structural component of SEM through Partial Least Squares Modelling (PLS)

The rationale for selecting the PLS modelling approach to SEM is as follows:

1. The inner model focuses on the relationships between unobserved and latent variables and thus, related to the structural model used in soft-based modelling approach, whereas,

2. The outer model focuses on the relationships between a latent variable and its observed or manifest variables (Henseler et al., 2009). This model is related to the measurement model in hard-based modelling approach.

PLS variance based technique is becoming popular and is the preferred approach by researchers today. The main reason for using PLS modelling is that it explores and predicts. In order to test and validate exploratory models, Henseler et al. (2009) recommended to perform PLS modelling in an early stage of theoretical development. PLS path modelling circumvents problems when using small sample size and can be more useful in certain situations when other methods cannot. It can also evaluate very complex models with many latent and manifest variables (Henseler et al., 2009). This study employed PLS modelling due to the fact that this study has a complex model and the benefits of using PLS modelling is through exploration of relationships between the
variables. As change-oriented leadership and change-oriented OCB have not been used in many previous studies, their inclusion in a complex model with other, better known positive organisational variables are exploratory in nature.

### 3.5.3.7 Evaluation of PLS path model results

The goodness-of-fit criterion is not provided for in PLS modelling. Consequently, Chin (1998) advanced a list of criteria to assess partial model structures. There is a two-step process to the systematic application as depicted in the Figure 3.1 below.

![Figure 3.1 Two-Step process of PLS Path Model assessment](http://etd.uwc.ac.za/)

Source: Henseler et al. 2009

#### 3.5.3.7.1 Assessing the PLS outer model

When assessing the outer model, we test its reliability and validity.

**(i) Reliability**

The traditional way of assessing reliability is through Cronbach’s alpha, which is a measure of internal consistency and indicates how closely the items are related as a
group (Cronbach, 1951). Although the Cronbach alpha is a more reliable measure, the PLS modelling on the other hand, prioritises indicators according to the reliability thereby resulting in a more reliable composite (Henseler et al., 2009). The composite reliability allows for indicators from dissimilar loadings which has the same interpretation as the Cronbach alpha. When conducting PLS Path Modelling, the researcher tested the rho_A and Composite reliability which according to Henseler et al. (2009) must be greater than 0.70.

(ii) Validity

There are normally two subtypes examined when assessing the validity which includes convergent and discriminant validity. Convergent validity implies that two similar constructs correspond with one another. Discriminant validity applies to two different constructs that can be easily differentiated. It was suggested that this study should use the average variance extracted (AVE) as a measure of convergent validity (Henseler et al., 2009). The value of an AVE must be at minimum 0.5 in order to indicate adequate convergent validity. This means that the “latent variable is able to explain more than half of the variance of its indicators on average” (Henseler et al., 2009, p. 299).

Table 3.7 Assessing the PLS Outer Model (Measurement Model)

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Composite reliability</td>
<td>The value must not be lower than 0.6</td>
</tr>
<tr>
<td>Average variance extracted (AVE)</td>
<td>The value should not be higher than 0.5</td>
</tr>
</tbody>
</table>

Source: Henseler et al. 2009
The section below discusses the criteria for the PLS inner model.

3.5.3.7.2 Assessing the PLS inner model

PLS SEM concentrates on the differences between manifest variables and latent variable values of the dependent variables and the values predicted by the model in question (Henseler & Sarstedt, 2013). Therefore, in order to evaluate the inner path model, one must have a reliable and valid outer model (Henseler et. al., 2009). The criteria for the PLS inner model are outlined in Table 3.8.

Table 3.8 Assessing the PLS Inner Model

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>$R^2$ of endogenous latent variables</td>
<td>$R^2$ values of 0.67, 0.33, or 0.19 for endogenous latent variables are described as substantial, moderate, or weak (Chin, 1998)</td>
</tr>
<tr>
<td>Estimates for path coefficient</td>
<td>Estimated values for path relationships in the structural model should be evaluated in terms of sign, magnitude and significance (the latter via bootstrapping)</td>
</tr>
</tbody>
</table>
3.5.3.8 Bootstrapping

“Bootstrapping is a nonparametric procedure which allows testing the statistical significance of various PLS-SEM results such as path coefficients, Cronbach’s alpha, and R² values” (Hair, Hult, Ringle & Sarstedt, 2017). The bootstrap procedure provides an estimation of the spread, shape, and bias of the sampling distribution of a specific statistic. It treats the observed sample as if it represents the population (Henseler et al., 2009). The PLS results for all bootstrap samples provide the mean value and standard error for each path model coefficient. This information permits a t-test to be performed for the significance of the path model relationships.

3.6 MOTIVATION FOR USING PLS MODELLING

The main reason for using PLS modelling is the emphasis placed on exploration and prediction, which employs rigorous quality criteria (goodness-of-fit statistics). As some of the relationships between the variables in the theoretical model have not empirically been proven before (i.e. due to a paucity of research on change-oriented leadership and change-OCB), the exploratory benefits of variance-based SEM were favoured. The results of this study would then provide some indication of the relationships and patterns of relationships of these variables with other positive organisational variables. Therefore, Henseler et al. (2009) noted that this methodology assists researchers to focus on the explanation of endogenous constructs.

3.7 SUMMARY

This chapter provided a summary of the methodology applied which included quantitative statistical research. The researcher gave a brief description of the population and the sample. The chapter discussed the measuring instruments and their
psychometric properties. Furthermore, the chapter explained the procedure followed with respect to how the data was collected and specific ethical requirements followed. The methods employed for analysing the data were discussed and included reliability, validity, CFA, and correlation analysis. The chapter also provided support for the use of structural equation modelling and, more specifically, PLS path modelling.

The results of the study are presented in Chapter 4.
CHAPTER 4
ANALYSIS AND FINDINGS

4.1 INTRODUCTION

The statistical techniques used to evaluate each of the propositions were outlined in Chapter 3. The purpose of this chapter is to present the findings of the analysis as well as to describe the missing value transformation, the descriptive statistics and scale reliabilities. The measuring instruments were also evaluated to determine their appropriateness (in terms of both reliability and validity) before being used to test the various propositions. The study will use fit indices (i.e. CFI, RMSEA, SRMR, SBX²/df) through confirmatory factor analysis to determine the goodness-of-fit of the measuring instruments to the data. To determine the relationships between the variables, Spearman’s rank correlation coefficient was used to determine the correlations between the variables. Furthermore, variance-based structural equations modeling is used to evaluate the model of relationships between the variables.

Once the outer model has been evaluated, the inner model will be discussed. Furthermore, the inner model will statistically explore and confirm the theoretical model and the relationships between the variables by using variance-based SEM. In addition, Chapter 4 will provide preliminary conclusions of the tested propositions based on the results of the data analysis utilising the SPSS, Mplus, and SmartPLS statistical analysis software.

In summary, this chapter will discuss the results of the data analysis for the acceptance or rejection of the propositions and the implications thereof.
4.2. **MISSING VALUE TRANSFORMATION**

Missing values is a common problem when using paper and pencil format questionnaires. This can affect the analysis of specific multivariate data which can then reduce the representativeness of the sample. One way of preventing missing values is to utilise online surveys. Answering items with online surveys forces respondents to answer each item before proceeding to the next. In this study, the researcher used both paper and pencil as well as online questionnaires whereby respondents were allowed to complete each question voluntarily. In order to uphold ethical principles, no respondent was forced to answer any item. This does, however, imply that some missing values would occur in the data. Table 4.1 outlines the changes to the original sample size to the eventual number of cases used to analyse the data.

**Table 4.1 Results of missing values analysis**

<table>
<thead>
<tr>
<th>Total sample collected</th>
<th>813</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of cases with more than 50% missing values</td>
<td>59</td>
</tr>
<tr>
<td>Number of cases with some missing values</td>
<td>18</td>
</tr>
<tr>
<td>Number of cases with complete values</td>
<td>736</td>
</tr>
</tbody>
</table>

The cases with more than 50% missing data were removed from further analysis. Eighteen cases with some missing values (between one and two items were not responded to) were found. For these eighteen cases, the missing values were replaced with the series mean in order to improve the quality of the estimation. It is important to understand missing values in order to successfully manage the data. Zhang (2016) noted there are various software packages to deal with missing values. One method of dealing with missing values is utilisation of single imputation method whereby the missing value is replaced with the mean of that variable. One disadvantage of this
method is that it distorts the distribution of the variable and can underestimate the standard deviation (Zhang, 2016). However, where sample sizes are large (such as in the present study) this is unlikely to make a significant statistical difference to the results.

4.3 DESCRIPTIVES

The section below will provide an understanding of the sample and its characteristics. All of the measurements were rated on a Likert scale. The researcher will summarise and describe the total scores of each variable and the responses accordingly.

4.3.1 Change-oriented leadership sample

Respondents perceptions of the leader’s change-oriented leadership behaviours were measured using a rating scale of one to six with one being a low score, meaning the leader did not display any change-oriented behaviours, and six being a high score, meaning the opposite. For ease of interpretation, the mean scores were grouped into ranges and plotted against the score keys as follows:

1.00 – 2.67 = Low score on change-oriented leadership
2.68 – 4.33 = Medium score on change-oriented leadership
4.34 – 6.00 = High score on change-oriented leadership

Descriptive statistics for scores on change-oriented leadership are shown in Table 4.2 below. The results indicated that employees on average felt their leaders were moderately change-oriented with a mean score (M = 3.79; SD = 1.21). With respect to the Likert scale for this questionnaire, a 3 indicates that the employee somewhat
disagrees and a 4 indicates that the employee somewhat agrees that their leader is change-oriented. The negative sign for the skewness coefficient (-.48) indicates that the data was positively skewed; however, it is still within the acceptable bound of $> \pm 1$.

Table 4.2 Descriptive statistics of scores on Change-oriented leadership (N = 736)

<table>
<thead>
<tr>
<th></th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std Deviation</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change-oriented Leadership</td>
<td>1.00</td>
<td>6.00</td>
<td>3.79</td>
<td>1.21</td>
<td>-.48</td>
<td>-.38</td>
</tr>
</tbody>
</table>

4.3.2 PsyCap sample

PsyCap was measured on a rating scale of one to six, with one suggesting a low score on PsyCap and six suggesting a high score. The mean scores were calculated and plotted against the scoring key to indicate the level of PsyCap, as follows:

1.00 – 2.67 = Low score on PsyCap or PsyCap dimension

2.68 – 4.33 = Medium score on PsyCap or PsyCap dimension

4.34 – 6.00 = High score on PsyCap or PsyCap dimension

Descriptive statistics for scores on PsyCap are shown in Table 4.3 below.
The results indicated that the total mean score (M = 4.64) fell into the high range, suggesting that employees on average displayed a high level of PsyCap. Additionally, all four dimensions had high mean scores, namely: efficacy (M = 4.45), hope (M = 4.61), resilience (M = 4.59) and optimism (M = 4.93). The high scores indicated that most employees typically strongly agreed to feeling confident they could complete their tasks, they could make positive contributions, they persevered when working towards their goals and that they showed resilience when faced with any problems. The total PsyCap and three of the dimensions, with the exception of optimism was moderately positively skewed falling within the -1.00 to +1.00 range (Hair et al., 2010). Optimism was highly positively skewed (-1.07) as the kurtosis scored exceeded the bounds of >-1.00. Therefore, since all the skewness coefficients were positively skewed, it suggested that employees leaned towards scoring on the high side.

Table 4.3 Descriptive statistics of scores on PsyCap (N = 736)

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std Deviation</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCap_Efficacy</td>
<td>1.00</td>
<td>6.00</td>
<td>4.45</td>
<td>1.12</td>
<td>-.91</td>
<td>.53</td>
</tr>
<tr>
<td>PCap_Hope</td>
<td>1.00</td>
<td>6.00</td>
<td>4.61</td>
<td>1.02</td>
<td>-.90</td>
<td>.91</td>
</tr>
<tr>
<td>PCap_Resilience</td>
<td>1.00</td>
<td>6.00</td>
<td>4.59</td>
<td>.87</td>
<td>-.74</td>
<td>1.16</td>
</tr>
<tr>
<td>PCap_Optimism</td>
<td>1.00</td>
<td>6.00</td>
<td>4.93</td>
<td>.90</td>
<td>-1.07</td>
<td>1.54</td>
</tr>
<tr>
<td>PCap_Total</td>
<td>1.42</td>
<td>6.00</td>
<td>4.64</td>
<td>.78</td>
<td>-.85</td>
<td>1.30</td>
</tr>
</tbody>
</table>
4.3.3 Psychological Empowerment sample

Psychological empowerment was measured on a rating scale of one to six, with one suggesting a low score on psychological empowerment, and six suggesting a high score. The mean scores were calculated and plotted against the scoring key to indicate the level of psychological empowerment, as follows:

1.00 – 2.67 = Low score on PEQ or PEQ dimension
2.68 – 4.33 = Medium score on PEQ or PEQ dimension
4.34 – 6.00 = High score on PEQ or PEQ dimension

Table 4.4 Descriptive statistics of scores on PEQ (N = 736)

<table>
<thead>
<tr>
<th></th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std Deviation</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE_Meaning</td>
<td>1.00</td>
<td>6.00</td>
<td>5.24</td>
<td>.84</td>
<td>-1.44</td>
<td>5.38</td>
</tr>
<tr>
<td>PE_Competence</td>
<td>1.00</td>
<td>6.00</td>
<td>5.37</td>
<td>.70</td>
<td>-1.67</td>
<td>5.20</td>
</tr>
<tr>
<td>PE_Self Determination</td>
<td>1.00</td>
<td>6.00</td>
<td>4.88</td>
<td>.93</td>
<td>-1.06</td>
<td>1.28</td>
</tr>
<tr>
<td>PE_Impact</td>
<td>1.00</td>
<td>6.00</td>
<td>4.16</td>
<td>1.27</td>
<td>-.60</td>
<td>-.18</td>
</tr>
<tr>
<td>PE_Total</td>
<td>1.00</td>
<td>6.00</td>
<td>4.91</td>
<td>.70</td>
<td>-.95</td>
<td>2.41</td>
</tr>
</tbody>
</table>

Descriptive statistics for scores on psychological empowerment are shown in Table 4.4 above. The mean score for the total psychological empowerment represented a high score (M = 4.91) suggesting that employees on average had high levels of psychological

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empowerment and displayed an active orientation to their work role. The results for the dimensions, namely: meaning (M = 5.24), competence (M = 5.37) and self-determination (M = 4.88) were all high scores. With respect to the Likert scale, a 4 indicates that employees somewhat agree and a 5 indicates that employees typically agreed to feeling tenacity or a personal connection to their work. They also agree that they have the necessary skills and the freedom to execute their work. However, impact fell in the moderate range with a mean score of (M = 4.16) which suggested that employees felt that their individual beliefs only makes a moderate impact on the organisation. With respect to the skewness coefficients, the total psychological empowerment and impact skewness fell in the -1.00 to +1.00 range and was slightly positively skewed. However, meaning, competence, and self-determination were highly positively skewed at < -1.00. With this said, employees inclined to respond on the high side of the scale.

4.3.4 Work engagement sample

Work engagement was measured on a rating scale of zero to six. Zero is the lowest score meaning “no engagement” and six is the highest score meaning high engagement. The mean scores were banded into ranges according to the norm scores as outlined by the UWES manual below:

0.00 – 1.77 = Very low score on WE or WE dimension

1.78 – 2.88 = Low score on WE or WE dimension

2.89 – 4.66 = Average score on WE or WE dimension

4.67 – 5.50 = High score on WE or WE dimension

≥ 5.51 = Very high score
Descriptive statistics for scores on work engagement are shown in Table 4.5 below.

Table 4.5 Descriptive statistics of scores on work engagement (N = 736)

<table>
<thead>
<tr>
<th></th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std Deviation</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>WE_Vigour</td>
<td>.00</td>
<td>6.00</td>
<td>4.30</td>
<td>1.28</td>
<td>-.72</td>
<td>.39</td>
</tr>
<tr>
<td>WE_Dedication</td>
<td>.00</td>
<td>6.00</td>
<td>4.69</td>
<td>1.28</td>
<td>-.98</td>
<td>.49</td>
</tr>
<tr>
<td>WE_Absorption</td>
<td>.00</td>
<td>6.00</td>
<td>4.39</td>
<td>1.26</td>
<td>-.72</td>
<td>.18</td>
</tr>
<tr>
<td>WE_Total</td>
<td>.11</td>
<td>6.00</td>
<td>4.46</td>
<td>1.14</td>
<td>-.88</td>
<td>.61</td>
</tr>
</tbody>
</table>

The results indicated that the total mean score of work engagement (M = 4.46) as well as the dimensions were in the average range. The mean scores for the dimensions were as follows: vigour (M = 4.30), dedication (M = 4.69) and absorption (M = 4.39). Dedication fell into the high range. According to the norm scores, a 4 indicates that employees have average levels of energy at work, are enthusiastic, involved, and engrossed in their work. The skewness coefficients were moderately positively skewed for all the dimensions including the total work engagement and were within the range of -1.00 to +1.00.

4.3.5 Change-oriented OCB sample

Change-oriented OCB was measured on a rating scale of one to six, with one suggesting a low score on changed-oriented OCB and six suggesting a high score. The mean scores were calculated and plotted against the scoring key to indicate the level of change-oriented OCB, as follows:
1.00 – 2.67 = Low score on change-oriented OCB
2.68 – 4.33 = Medium score on change-oriented OCB
4.34 – 6.00 = High score on change-oriented OCB

Descriptive statistics for scores on change-oriented OCB are shown in Table 4.6 below.

Table 4.6 Descriptive statistics of scores on change-oriented OCB (N = 736)

<table>
<thead>
<tr>
<th></th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std Deviation</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change oriented OCB</td>
<td>1.00</td>
<td>6.00</td>
<td>4.71</td>
<td>.85</td>
<td>-.92</td>
<td>1.40</td>
</tr>
</tbody>
</table>

The results indicated that the mean score (M = 4.71) was high and that employees displayed a high level of change-oriented OCB. However, according to the Likert scale, a 4 indicates that employees somewhat agree and a 5 indicates employees agree that they can make changes to their current work methods and procedures, try to correct faulty procedures, and try to implement solutions to their problems. Furthermore, the skewness coefficient was within the range and therefore, the distribution of the responses was moderately positively skewed.
4.4 PSYCHOMETRIC PROPERTIES OF THE MEASURING INSTRUMENTS

4.4.1 Reliability

Measuring instruments for the variables in this study were analysed for internal consistency using Cronbach’s alpha (Cronbach, 1951) as obtained by SmartPLS. All totals for the measuring instruments had a Cronbach alpha above 0.70, meeting accepted minimum scale reliabilities with total PsyCap being the lowest of $\alpha = 0.848$ and change-oriented leadership with the highest reliability of $\alpha = 0.908$.

The results of the analysis can be seen in Table 4.7 below.
Table 4.7 Reliabilities of Measuring Instruments

<table>
<thead>
<tr>
<th>Scale/Dimension</th>
<th>Number of Items</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change-Oriented Leadership</td>
<td>6</td>
<td>.908</td>
</tr>
<tr>
<td>Psychological Capital</td>
<td>12</td>
<td>.848</td>
</tr>
<tr>
<td>Efficacy</td>
<td>3</td>
<td>.764</td>
</tr>
<tr>
<td>Hope</td>
<td>3</td>
<td>.640</td>
</tr>
<tr>
<td>Resilience</td>
<td>3</td>
<td>.480</td>
</tr>
<tr>
<td>Optimism</td>
<td>3</td>
<td>.669</td>
</tr>
<tr>
<td>Psychological Empowerment</td>
<td>12</td>
<td>.860</td>
</tr>
<tr>
<td>Meaning</td>
<td>3</td>
<td>.864</td>
</tr>
<tr>
<td>Competence</td>
<td>3</td>
<td>.811</td>
</tr>
<tr>
<td>Self-Determination</td>
<td>3</td>
<td>.752</td>
</tr>
<tr>
<td>Impact</td>
<td>3</td>
<td>.834</td>
</tr>
<tr>
<td>Work Engagement</td>
<td>9</td>
<td>.883</td>
</tr>
<tr>
<td>Vigour</td>
<td>3</td>
<td>.761</td>
</tr>
<tr>
<td>Dedication</td>
<td>3</td>
<td>.812</td>
</tr>
<tr>
<td>Absorption</td>
<td>3</td>
<td>.620</td>
</tr>
<tr>
<td>Change-Oriented OCB</td>
<td>9</td>
<td>.897</td>
</tr>
</tbody>
</table>
Although the total reliability for the constructs are above the $\alpha = 0.70$ level, it can be seen in Table 4.7 that three of the PsyCap dimensions including hope, resilience, and optimism were below $\alpha = 0.70$, with resilience being the lowest ($\alpha = 0.480$). Similar results were found for absorption which is also below the acceptable level. However, Moss et al. (1998) have also supported the view that Cronbach alpha value above 0.6 is generally acceptable. This is supported by Hair, Tatham, Anderson & Black (1998).

4.4.2 Confirmatory Factor Analysis of the structure of the variables

The results reported in this section are based on 736 respondents and will evaluate the quality of the instruments used to measure the constructs. Goodness-of-fit is used to test the hypothesis that the population covariance matrix is equal to the covariance matrix estimated in Mplus. Guidelines regarding the cut-off points that assisted in explaining and interpreting the usefulness of the goodness-of-fit statistics (associated with confirmatory factor analysis) are reported in Table 4.8 below. Based on the test of multivariate normality, the data was deemed to be skewed and the robust maximum likelihood method of estimation was required in this study.
Table 4.8 Guideline in explaining and interpreting CFA and SEM models

<table>
<thead>
<tr>
<th>Fit Indices</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFI (Comparative fit index)</td>
<td>Range 0 – 1 (the higher the better)</td>
</tr>
<tr>
<td></td>
<td>Values above .9 is associated with good fit</td>
</tr>
<tr>
<td>NFI (Normed-fit index)</td>
<td>Range 0 – 1 (the higher the better)</td>
</tr>
<tr>
<td></td>
<td>&gt;0.90</td>
</tr>
<tr>
<td>RMSEA (Root-mean square error of approximation)</td>
<td>&lt;.05 good fit</td>
</tr>
<tr>
<td></td>
<td>&lt; .05 - 0.08 acceptable</td>
</tr>
<tr>
<td></td>
<td>Confidence intervals should be consulted</td>
</tr>
<tr>
<td></td>
<td>for larger samples (i.e. &gt;500)</td>
</tr>
<tr>
<td>SRMR (Standardised root mean square residual)</td>
<td>Lower SRMR values present better fit</td>
</tr>
<tr>
<td></td>
<td>&gt;.1 suggests problematic fit</td>
</tr>
<tr>
<td>S-B X^{2}/df (Satorra-Bentler scaled chi-square divided by degrees of freedom)</td>
<td>Values between 2 - 5 indicate adequate fit</td>
</tr>
</tbody>
</table>

Source: Hair, Black, Babin, and Anderson (2010)

With regards to the CFA, the original factor structure of the instruments (or dimensions of the instrument as is the case with change-oriented OCB) was utilised. The following section will discuss the goodness-of-fit of the factor structure to the sample for each of the measuring constructs as outlined in Table 4.9.
Table 4.9 Results of the confirmatory factor analysis on the variables

<table>
<thead>
<tr>
<th></th>
<th>S-B $X^2$</th>
<th>df</th>
<th>CFI</th>
<th>RMSEA</th>
<th>SRMR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changed-oriented OCB</td>
<td>107.423</td>
<td>27</td>
<td>.946</td>
<td>.064 (.051;0.076)</td>
<td>.039</td>
</tr>
<tr>
<td>Work engagement</td>
<td>45.653</td>
<td>24</td>
<td>.990</td>
<td>.035 (.019;0.050)</td>
<td>.023</td>
</tr>
<tr>
<td>PsyCap</td>
<td>220.411</td>
<td>48</td>
<td>.902</td>
<td>.070 (.061;0.079)</td>
<td>.054</td>
</tr>
<tr>
<td>Psychological empowerment</td>
<td>224.551</td>
<td>48</td>
<td>.937</td>
<td>.071 (.062;0.080)</td>
<td>.066</td>
</tr>
<tr>
<td>Change-oriented leadership</td>
<td>60.829</td>
<td>9</td>
<td>.973</td>
<td>.088 (.068;0.110)</td>
<td>.027</td>
</tr>
</tbody>
</table>

4.4.2.1 Change-oriented OCB (n=736)

The 9-item change-oriented OCB developed by Morrison and Phelps (1999) was used. The CFA results of the original structure of change-oriented OCB provided an acceptable fit for all indices. As presented in Table 4.9 the fit indices are $S-B \frac{X^2}{df} = 3.98$, CFI (.946) and SRMR (.039). The RMSEA value (0.64) is an acceptable fit well within the range of < 0.08.

4.4.2.2 Work Engagement (n=736)

The results of the CFA on the original structure of the work engagement measurement is displayed in Table 4.9. The study utilised the UWES-9 measurement. The fit indices
for both the CFI of .990, which is close to the ideal score of 1, and the SRMR (0.23) were an acceptable fit. Similarly, the RMSEA of .035 (within the range of < 0.08) demonstrated good fit (Hair et al., 2016). However, the $S-B \chi^2/df = 1.90$ was slightly below the range of 2 – 5.

### 4.4.2.3 Psychological Capital (n=736)

The PCQ 12-item version was used and presented an acceptable fit. The results are indicated in Table 4.9. The fit indices for both the CFI (0.902) and RMSEA value (.070) are at the level of <.08 for the RMSEA and >.90 for CFI (Hair et al., 2010) and shows an acceptable fit. The $S-B \chi^2/df = 4.59$ is also within the suggested range of 2 – 5 and the SRMR (0.054) is also sufficiently low.

### 4.4.2.4 Psychological Empowerment (n=736)

Psychological empowerment was measured by utilising Spreitzer’s (1995) 12-item measurement scale. The fit indices associated with the psychological empowerment construct provided evidence of an acceptable fit with respect to the CFI (0.937), $S-B \chi^2/df = 4.68$; and the RMSEA value (0.071). Similar to the RMSEA, the SRMR was towards the high side (0.066) as represented in Table 4.9.

### 4.4.2.5 Change-oriented Leadership (n=736)

The fit indices associated with the change-oriented leadership construct are presented in the Table 4.9. The fit indices for the CFI (.973) shows good fit and SRMR (.027) are an acceptable fit. The RMSEA value (.088) is marginally higher than the preferred range of <.08 (Hair et al., 2010). In consulting the 95% confidence intervals for the
RMSEA statistic (.068; .110), it can be seen that the RMSEA most likely falls within the high range of acceptable and indicating towards a poorer fit at the upper level. The $S-B \frac{X^2}{df} = 6.76$ value also fell outside the acceptable range of between 2 and 5 which suggested a poorer fit.

When using the guidelines provided by Hair et al. (2010), Table 4.9 above indicated that the SRMR are within acceptable limits for all the variables. In addition, good fit is suggested by the results reflected in the CFI, which is all above 0.90 level. The following can be observed about the five measuring instruments:

a. The CFI showed acceptable fit of $> 0.90$;
b. the RMSEA values were all within the range of $<.08$ (Hair et al., 2010), with exception to change-oriented leadership; and
c. the SRMR value of $<.1$ showed acceptable fit for the variables.

Given the above, all of the instruments used to measure the constructs in the current study exhibited acceptable reliabilities (at the $\alpha = > 0.70$ level) and indications of model fit by utilising the original conceptualisations of the instruments, with the three PsyCap dimensions of hope, optimism, and resilience and absorption a dimension of work engagement that showed reliability of higher than 0.6. However, as the data was not analysed at the dimensional level, these dimensions were retained as part of the total variable in the theoretical model. Thus, the original conceptualisations of the instruments were used for further analyses. The following section continues with the reporting of the results of the structural model.
4.5 TESTING OF THE THEORETICAL MODEL USING VARIANCE BASED SEM

In the following sections the results related to both the outer model (measurement model) and the inner model (structural model) associated with the proposed theoretical model will be reported.

Figure 4.1 Proposed Theoretical model

On the basis of the theoretical model, the reporting of the results will be guided by the following proposition:

There is a relationship between change-oriented leadership, psychological empowerment, PsyCap, work engagement, and change-oriented OCB.

4.5.1 Results of the measurement and structural model

When using the PLS approach to structural equation modelling, a two-step process is suggested (Chin, 1998). The first stage evaluates the outer model (i.e. measurement
component). The purpose of this evaluation is to determine the measurement quality of
the constructs to be used in the evaluation of the inner model (i.e. structural component).
In the following section, the quality criteria used to evaluate the outer model of the
proposed theoretical model is discussed. These criteria are the Composite Reliability,
rho_A and the Average Variance Extract (AVE) which is discussed below.

**Table 4.10 Composite Reliability, rho_A, Cronbach’s Alpha, and AVE (Model 1)**

<table>
<thead>
<tr>
<th></th>
<th>Cronbach's Alpha</th>
<th>rho_A</th>
<th>Composite Reliability</th>
<th>Average Variance Extracted (AVE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changed-oriented</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>leadership</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Changed-oriented OCB</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychological</td>
<td>0.742</td>
<td>0.761</td>
<td>0.831</td>
<td>0.552</td>
</tr>
<tr>
<td>empowerment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PsyCap</td>
<td>0.812</td>
<td>0.815</td>
<td>0.876</td>
<td>0.639</td>
</tr>
<tr>
<td>Work engagement</td>
<td>0.869</td>
<td>0.884</td>
<td>0.92</td>
<td>0.793</td>
</tr>
</tbody>
</table>

The theoretical model was evaluated using PLS-SEM. According to Table 4.10, all the
variables met the quality criteria associated with an acceptable outer model (i.e.
measurement model). This is based on the fact that all the variables have acceptable
reliabilities (composite reliability > 0.7 and Cronbach’s Alpha > 0.7) as well as average
variance extracted (AVE above 0.5). Psychological empowerment had the lowest
Cronbach alpha of $\alpha = 0.742$ and the lowest AVE of 0.552. All of the variables are
within the acceptable range. Change-oriented leadership and change-oriented OCB are first order factors (i.e. the items directly explain the variance in the latent variable); their values are 1. The outer model met all the quality criteria appropriate for an acceptable outer model.

The outer model loadings appear in Table 4.11 below. They may be considered a form of item reliability coefficients for reflective models. The closer the loadings are to 1.0, the more reliable that latent variable is within the model. In general, the larger the loadings, the stronger and more reliable the measurement model (Garson, 2016). Henseler et al. (2009) suggested a path loading should be above 0.70 for a reflective model to be a well-fitting model. The t-statistics, which goes hand in hand with the p-values, were tested to find significant differences between the population mean and the hypothetical value (1-sample t). In this study, the t-value in the output in Table 4.11 is calculated from one sample (the entire population). It is suggested that the greater the magnitude of T (negative or positive), the greater the evidence against the null hypothesis. The closer T is to 0, the more likely there is not a significant difference.
### Table 4.11 Outer Loadings

|                              | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics (|O/STDEV|) | P Values |
|------------------------------|---------------------|-----------------|-----------------------------|-----------------------------|----------|
| Absorption ← Work Engagement | 0.831               | 0.83            | 0.017                       | 48.661                      | 0.000    |
| Dedication ← Work Engagement | 0.924               | 0.924           | 0.006                       | 158.324                     | 0.000    |
| Vigour ← Work Engagement     | 0.914               | 0.914           | 0.007                       | 130.887                     | 0.000    |
| Changed OCB ← C_OCB          | 1                   | 1               | 0                           |                             |          |
| Efficacy ← PsyCap            | 0.782               | 0.782           | 0.019                       | 40.542                      | 0.000    |
| Hope ← PsyCap                | 0.828               | 0.827           | 0.016                       | 50.803                      | 0.000    |
| Optimism ← PsyCap            | 0.787               | 0.788           | 0.021                       | 37.408                      | 0.000    |
| Resilience ← PsyCap          | 0.799               | 0.8             | 0.021                       | 37.296                      | 0.000    |
| Competence ← Psychological empowerment | 0.694           | 0.692           | 0.043                       | 16.203                      | 0.000    |
| Impact ← Psychological empowerment | 0.744           | 0.742           | 0.029                       | 25.73                       | 0.000    |
| Meaning ← Psychological empowerment | 0.775           | 0.776           | 0.021                       | 37.314                      | 0.000    |
| Self Determination ← Psychological empowerment | 0.757           | 0.757           | 0.03                        | 25.636                      | 0.000    |
| Change-oriented leadership Total ← COL | 1               | 1               | 0                           |                             |          |
According to the Table 4.11, all the dimensions have significant loadings on their respective dimensions ranging between 0.694 and 0.924. The T-statistics are significant and well above the suggested value of 1.96 and the p-values are all below the p-value of < 0.00. Therefore, due to the fact that there are no issues with the outer model, the inner model was evaluated.

4.5.2. Results of the inner model analysis

On the basis of acceptable quality criteria of the outer model, the inner model can be evaluated.

4.5.2.1 Path Coefficients

The following table provides information on the inner model results. Garson (2016) indicated path coefficients are always standardised path coefficients. Given standardisation, path weights therefore vary from -1 to +1. Standardised paths should be around 0.20 and ideally above 0.30 in order to be considered meaningful. Meehl (1990) argued that anything lower may be due to what he has termed the crud factor where “everything correlates to some extent with everything else” (p. 204). Bootstrapping was used to determine the significance of the path coefficients and outer loading. Bootstrapping uses resampling methods to compute the significance of PLS coefficients.

The results of the PLS Path modelling are presented in Table 4.12.
Table 4.12 PLS Path Modelling Results

|                                      | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics (|O/STDEV|) | P Values |
|--------------------------------------|---------------------|-----------------|-----------------------------|-----------------------------|----------|
| Change-oriented leadership to        | 0.158               | 0.159           | 0.038                       | 4.104                       | 0.000    |
| psychological empowerment            |                     |                 |                             |                             |          |
| Change-oriented leadership to        | 0.303               | 0.305           | 0.037                       | 8.249                       | 0.000    |
| PsyCap                               |                     |                 |                             |                             |          |
| Change-oriented leadership to        | 0.189               | 0.188           | 0.031                       | 6.061                       | 0.000    |
| work engagement                      |                     |                 |                             |                             |          |
| Psychological empowerment to         | 0.37                | 0.372           | 0.041                       | 9.044                       | 0.000    |
| work engagement                      |                     |                 |                             |                             |          |
| PsyCap to work engagement            | 0.201               | 0.201           | 0.043                       | 4.677                       | 0.000    |
| Work engagement to change-oriented   | 0.382               | 0.384           | 0.037                       | 10.218                      | 0.000    |
| OCB                                  |                     |                 |                             |                             |          |

4.5.2.2 R-square (R²) results

R-squares are explored to see whether the impact of a particular independent variable on a dependent variable has substantial impact. A guideline by Chin (1998, p. 323; see also Höck & Ringle, 2006, p. 15) indicates the effect of R-square (R²) in Table 4.13.

Table 4.13 Guideline of R²

<table>
<thead>
<tr>
<th></th>
<th>Substantial</th>
<th>Moderate</th>
<th>Weak</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;0.67</td>
<td>0.19-0.33</td>
<td>&lt;.019</td>
<td></td>
</tr>
</tbody>
</table>

The results of the R² values as observed in the inner model are represented in Table 4.14 below.
Table 4.14 R² results

|                        | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics (|O/STDEV|) | P Values |
|------------------------|---------------------|----------------|---------------------------|--------------------------|----------|
| Change-oriented OCB    | 0.146               | 0.149          | 0.028                     | 5.111                    | 0.000    |
| Psychological empowerment | 0.025             | 0.027          | 0.012                     | 2.032                    | 0.043    |
| PsyCap                 | 0.092               | 0.094          | 0.022                     | 4.1                      | 0.000    |
| Work engagement        | 0.341               | 0.346          | 0.034                     | 10.04                    | 0.000    |

From Table 4.14 above, the proposed theoretical model explains \( R^2 = 0.341 \) of the variance in work engagement and \( R^2 = 0.146 \) of the variance in change-oriented OCB with a \( p < 0.00 \). This result can be interpreted as indicating that change-oriented leadership, PsyCap, and psychological empowerment together explain 34% of the variance observed in work engagement and 15% of the variance observed in change-oriented OCB. In both instances, a significant proportion of the variance is explained. It is noted that although the proportion of the variance for PsyCap (independent variable) of 9% and psychological empowerment of 3%, as weak it is, however, still statistically significant. Given the above, all the proposed theoretical paths are statistically significant and maintained in the theoretical model.

Indirect effects were analysed in order to further understand the relationships between the variables. In this theoretical model, the independent variables were change-oriented leadership, PsyCap, and psychological empowerment while the dependent variables were work engagement and change-oriented OCB. Table 4.15 below presents the indirect effects.
Table 4.15 Indirect Effects

|                                | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics (|O/STDEV|) | P Values |
|--------------------------------|---------------------|-----------------|-----------------------------|-----------------------------|-----------|
| COL \rightarrow PEMP \rightarrow WENG \rightarrow C_OCB | 0.022               | 0.023           | 0.007                       | 3.27                        | 0.0010    |
| COL \rightarrow PsyCap \rightarrow WENG \rightarrow C_OCB | 0.023               | 0.024           | 0.007                       | 3.235                       | 0.0010    |

A graphical representation of the PLS path model is represented in Figure 4.2. The blue circles represent the latent variables in the study and the values inside the blue circles are the $R^2$ values. As discussed before, the $R^2$ gives an indication of how much of the variance in a dependent variable is explained by the theoretical model. The beta weights are standardised regression weights for the effect that are presented in the path between the variables. The values presented in the paths showing towards the dimensions of each of the latent variables are known as factor loading.
The value of the beta coefficients suggested that psychological empowerment ($\beta = 0.37$) makes the strongest contribution in explaining the variance in work engagement when the variance explained by the other variables are controlled for. Whereas, work engagement ($\beta = 0.382$) makes the strongest contribution in explaining the variance in change-oriented OCB. However, although the beta coefficients of change-oriented leadership and PsyCap have a small effect, they are still statistically significant, implying that these variables also explain a meaningful variance in work engagement.

In summary, the original theoretical model was evaluated using PLS-SEM. The latter provided evidence of significant paths associated with the model.
4.5.3 Relationship between the variables

In support of the foregoing analysis and conclusions made on the testing of the propositions, the Spearman’s rank correlation coefficient ($r_s$) was used to calculate the relationships between the variables. Spearman’s rank correlations were chosen as the method of analysis due to the non-normality of the data. The value of the $r_s$ ranges from -1 to +1. Table 4.17 below presents the correlation coefficients between the variables. A guideline with respect to the interpretation of the $r_s$ is outlined in Table 4.16 below (Cohen, 1988). The p value is referred to as sig in SPSS and indicates whether the results happened by chance or whether a relationship exists in the sample. If the sig value is less than 0.05, it suggests that there is a relationship between the two variables.

Table 4.16 Guideline for $r_s$ values

<table>
<thead>
<tr>
<th>Correlation Coefficient</th>
<th>Strong</th>
<th>Moderate</th>
<th>Weak</th>
</tr>
</thead>
<tbody>
<tr>
<td>+values</td>
<td>+1 to 0.5</td>
<td>0.3</td>
<td>0.1 to 0</td>
</tr>
<tr>
<td>-values</td>
<td>-1 to -0.5</td>
<td>-0.3</td>
<td>-0.1 to 0</td>
</tr>
</tbody>
</table>
Table 4.17 Spearman Rank Correlations results (N = 736)

<table>
<thead>
<tr>
<th></th>
<th>COL Total</th>
<th>PCap Total</th>
<th>PEQ Total</th>
<th>WE Total</th>
<th>Change OCB</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Correlation Coefficient</strong></td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PCap_Total</strong></td>
<td>.300**</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.000</td>
<td>.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PEQ_Total</strong></td>
<td>.175**</td>
<td>.556**</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.000</td>
<td>.000</td>
<td>.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>WE_Total</strong></td>
<td>.310**</td>
<td>.466**</td>
<td>.483**</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.</td>
<td></td>
</tr>
<tr>
<td><strong>Change OCB</strong></td>
<td>.168</td>
<td>.439**</td>
<td>.432**</td>
<td>.374**</td>
<td>1.000</td>
</tr>
<tr>
<td></td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).

The following sections will draw from the analysis of the relationships between the variables in order to draw conclusions for the proposition testing.
4.5.3.1 Change-oriented leadership and psychological empowerment and PsyCap

<table>
<thead>
<tr>
<th>Proposition 1</th>
<th>Perceived change-oriented leadership relates positively to psychological empowerment experienced by the employee.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposition 2</td>
<td>Perceived change-oriented leadership relates positively to psychological capital experienced by the employee.</td>
</tr>
</tbody>
</table>

Proposition 1 and 2 were tested to determine whether change-oriented leadership explained a significant proportion of the variance in psychological empowerment and PsyCap. The results in Table 4.14 indicated that change-oriented leadership explains 3% of the variance in psychological empowerment ($R^2 = 0.025$, $p < 0.05$) and 9% of the variance in PsyCap ($R^2 = 0.092$, $p < 0.00$). When consulting the beta coefficients, it can be seen that change-oriented leadership explains a small but statistically significant proportion of the variance in psychological empowerment ($\beta = 0.158$) and explains a moderate statistically significant proportion of the variance in PsyCap ($\beta = 0.303$). Based on Table 4.17, there was also a positive but small relationship between change-oriented leadership and psychological empowerment ($r_s = .175$), and a positive but moderate relationship between change-oriented leadership and PsyCap ($r_s = .300$).

Therefore, although change-oriented leadership had a small to moderate effect with psychological empowerment and PsyCap, Proposition 1 and 2 are accepted.
4.5.3.2 Change-oriented leadership and work engagement

<table>
<thead>
<tr>
<th>Proposition 3</th>
<th>Perceived change-oriented leadership relates positively to work engagement experienced by the employee.</th>
</tr>
</thead>
</table>

Proposition 3 was tested to determine whether change-oriented leadership explained a significant proportion of the variance in work engagement. The results indicated that change-oriented leadership explains 34% of the variance in work engagement \( (R^2 = 0.341, p < 0.00) \). When consulting the beta coefficients, it can be seen that change-oriented leadership \((\beta = 0.189)\) explains a small but statistically significant proportion of the variance in work engagement. Furthermore, it can be seen in Table 4.17 that there was a positive but moderate relationship between change-oriented leadership and work engagement \((r_s = .310)\).

Therefore, Proposition 3 is accepted.

4.5.3.3 Work engagement and change-oriented OCB

<table>
<thead>
<tr>
<th>Proposition 4</th>
<th>Work engagement relates positively to change-oriented OCB displayed by the employee.</th>
</tr>
</thead>
</table>

The results from the analysis are presented in Table 4.14. Proposition 4 was tested to determine whether work engagement explained a significant proportion of the variance in change-oriented OCB. The results indicate that work engagement explains 15% of the variance in change-oriented OCB \( (R^2 = 0.146, p < 0.00) \). When consulting the beta
coefficients, it can be seen that work engagement ($\beta = 0.382$) explains a substantial statistically significant proportion of the variance in change-oriented OCB. Additionally, there is a positive but moderate relationship between work engagement and change-oriented OCB ($r_s = .374$).

Hence, Proposition 4 is accepted.

4.5.3.4 PsyCap and psychological empowerment as a mediator between change-oriented leadership and work engagement

<table>
<thead>
<tr>
<th>Proposition 5</th>
<th>Perceived change-oriented leadership indirectly affects change-oriented OCB through psychological empowerment and work engagement.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposition 6</td>
<td>Perceived change-oriented leadership indirectly affects change-oriented OCB through psychological capital and work engagement</td>
</tr>
</tbody>
</table>

Proposition 5 and 6 were tested to determine the indirect effect of psychological empowerment and PsyCap (respectively) between change-oriented leadership, work engagement, and change-oriented OCB. The results of these analyses are presented in Table 4.15. From the results in Table 4.15, it was found that there is a small but positive indirect effect between change-oriented leadership ($\beta = 0.158$) and psychological empowerment and ($\beta = 0.303$) PsyCap. It was further found that there is a small but positive relationship between change-oriented leadership ($\beta = 0.189$) and work engagement and work engagement ($\beta = 0.382$) was positively associated with change-oriented OCB. Lastly, the results indicated that although small, both psychological empowerment ($\beta = 0.022$) and PsyCap ($\beta = 0.023$) remain significant predictors of work
engagement and change-oriented OCB. Therefore, both psychological empowerment and PsyCap partially mediate the relationship between change-oriented leadership, work engagement, and change-oriented OCB.

Based on the small but significant indirect relationship of change-oriented leadership on change-oriented OCB via work engagement, psychological empowerment, and PsyCap, Propositions 5 and 6 are both accepted.

4.6 TESTING THE STRUCTURAL MODEL

| Proposition 7 | A theoretical framework of the relationship between change-oriented leadership, psychological empowerment, PsyCap, work engagement and change-oriented OCB can be shown through structural equations modelling to be a well-fitting model |

The structural model was built based on the measurement model of each of the respective variables that was confirmed and reported in Chapter 3. The theoretical model is outlined in Figure 4.1 above. It should be noted that variance-based modelling is focused more on exploring relationships between the variables than it is to test the fit of a model, as is typically performed in covariance based modelling. However, some guidelines for fit in variance based models have been suggested as SRMR < 0.05 (Hair et al., 2010); NFI values above 0.9 presents an acceptable fit (Hu & Bentler, 1999) and Henseler, Hubona and Ray (2016) suggest that dULS and dG < than the 95% bootstrapped quartile (HI 95% of dULS and HI 95% of dG) presents good fit. The saturated model assesses correlation between all the variables whereas the estimated model is based on a total effect scheme and takes the model structure into account (Henseler et al., 2016). Table 4.18 displays the results of the saturated and estimated
Table 4.18 Model Fit

<table>
<thead>
<tr>
<th></th>
<th>Saturated Model</th>
<th>Estimated Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRMR</td>
<td>0.075</td>
<td>0.171</td>
</tr>
<tr>
<td>d_ULS</td>
<td>0.508</td>
<td>2.662</td>
</tr>
<tr>
<td>d_G1</td>
<td>0.218</td>
<td>0.306</td>
</tr>
<tr>
<td>d_G2</td>
<td>0.174</td>
<td>0.264</td>
</tr>
<tr>
<td>Chi-Square</td>
<td>775.599</td>
<td>1,018.44</td>
</tr>
<tr>
<td>NFI</td>
<td>0.805</td>
<td>0.743</td>
</tr>
</tbody>
</table>

It is evident from the above table that applying the variance-based structural equation modelling to the theoretical model that both the values based on the saturated model and the estimated model for SRMR (0.075; 0.171) and the NFI (0.805; 0.743) are outside the acceptable limits, thus indicating a poor fit.

Given the fact that acceptable levels of fit associated with each of the constructs used in specifying the structural model (co-variance based) were reported earlier in this chapter, it is unlikely that the possible lack of fit is due to poorly operationalised constructs. However, if the aim is to find a well-fitting model, modification indices can be consulted to determine which changes to the existing model will result in improved fit. It is clear from the results that the structural model does not demonstrate a good fit to the data.

Therefore, Proposition 7 is not accepted.
4.7 SUMMARY

The purpose of the chapter was firstly to investigate the psychometric properties of the constructs. The majority of the constructs showed acceptable reliabilities and were above the 0.70 level, with exception to three of the dimensions of PsyCap, and one dimension of work engagement. The results also indicated that all instruments showed acceptable levels of fit to the data, with exception of change-oriented leadership. The CFI showed acceptable fit and was above the 0.90 level for all instruments. The RMSEA and SBX² / df statistics indicated acceptable fit, with exception of change-oriented leadership.

The study used the PLS approach to SEM and evaluated the outer model first. When evaluating the quality criteria of the outer model, it was found that all of the five constructs confirmed the relevant criteria in terms of reliabilities (Cronbach’s alpha, rho_A, Composite Reliability) and construct validity (Average Variance Extracted) have been met in the sample (n = 736). In addition, all the dimensions of the constructs had significant loadings. After evaluating the outer model, the second step was to test the propositions regarding the inner model. It was further found that change-oriented leadership explains 34% of the variance in work engagement and work engagement explains 15% of the variance in change-oriented OCB.

A summary of all the propositions tested is shown in Table 4.19 and the results are outlined.
<table>
<thead>
<tr>
<th>Number</th>
<th>Propositions to be tested</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposition 1</td>
<td>Perceived change-oriented leadership relates positively to psychological empowerment experienced by the employee.</td>
<td>Accepted</td>
</tr>
<tr>
<td>Proposition 2</td>
<td>Perceived change-oriented leadership relates positively to psychological capital experienced by the employee.</td>
<td>Accepted</td>
</tr>
<tr>
<td>Proposition 3</td>
<td>Perceived change-oriented leadership relates positively to work engagement experienced by the employee.</td>
<td>Accepted</td>
</tr>
<tr>
<td>Proposition 4</td>
<td>Employee work engagement relates positively to change-oriented OCB displayed by the employee.</td>
<td>Accepted</td>
</tr>
<tr>
<td>Proposition 5</td>
<td>Perceived change-oriented leadership indirectly affects change-oriented OCB through psychological empowerment and work engagement.</td>
<td>Accepted</td>
</tr>
<tr>
<td>Proposition 6</td>
<td>Perceived change-oriented leadership indirectly affects change-oriented OCB through psychological capital and work engagement.</td>
<td>Accepted</td>
</tr>
</tbody>
</table>
In summary, the original model provided evidence of significant paths associated with the model. Analysis reported that the dependent variables, specifically work engagement and change-oriented OCB, were significantly correlated to all of the independent variables with PsyCap and psychological empowerment showing room for improvement. This study used partial least squares to evaluate the structural model and resulted in significant path coefficients. Spearman’s rank correlation coefficient indicated positive but small to moderate relationships between change-oriented leadership and psychological empowerment as well as PsyCap and work engagement. Additionally, work engagement was positive but moderately correlated with change-oriented OCB.

The indirect effects clearly showed that psychological empowerment and PsyCap are significant predictors of work engagement and change-oriented OCB. The results indicated a small effect with psychological empowerment ($\beta = 0.022$) and PsyCap ($\beta = 0.023$) partially mediating the relationship between change-oriented leadership, work engagement, and change-oriented OCB. The original model was evaluated using PLS-SEM and showed evidence of statistically significant small to moderate paths associated with the model. In summary, the results indicated that the structural model did not present a good fit and further modifications are required.

| Proposition 7 | A theoretical framework of the relationship between change-oriented leadership, psychological empowerment, PsyCap, work engagement and change-oriented OCB can be shown through structural equations modelling to be a well-fitting model. | Rejected |
Finally, the implications of these findings will be discussed and interpreted in Chapter 5. The researcher will further provide recommendations of interventions to improve future research and to add value to the HR field.
CHAPTER 5
DISCUSSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

This chapter will discuss and interpret the findings presented in Chapter 4. The researcher will discuss the results of the study in relation to the relevant literature presented in earlier chapters. Further, it sets out the portability of the instruments, results of the survey, and finally the relationships between the variables. It will provide a summary of the findings with respect to the results in Chapter 4, including the theoretical model. The limitations of the current study will also be considered. The researcher will make recommendations to organisations, HR professionals, and future researchers wishing to take the study further. Lastly, a concluding argument will be presented.

This study aims to answer the following research questions:

1) Is there a relationship between the combinations of the variables and their dimensions which include change-oriented leadership, psychological empowerment, psychological capital, work engagement and change-oriented OCB?

2) Can a theoretical model of the relationships between these variables be developed and tested?
5.2 DEMOGRAPHIC INFORMATION

The study was carried out in a manufacturing organisation in South Africa, based in the Western Cape. It is important to note that the organisation was going through a merger and acquisition at the time when the data was collected; thus, the environment had been somewhat disrupted by these uncertainties.

The sample consisted of 736 employees. A majority of the respondents were men (N = 682, 92.7%) and only 7.3% females (N = 54). It is fairly common for men to dominate within the manufacturing industry in South Africa due to the technical skills and requirements as well as the physical heavy duties of the job. A majority of the respondents were in the 26 to 35 years old range, which comprised 32.5% (N = 239). Furthermore, most of the respondents held a Grade 12 certificate which represented 42.8% (N = 315) of the respondents overall. In a South African environment, it is also common for operator level employees to have Grade 12 certificates and lower. A majority of the respondents were Afrikaans speaking, which comprised a rather large percentage of 69.3% (N = 510) of the respondents. Afrikaans is more often spoken in the Western and Eastern Cape regions as opposed to other parts of South Africa. The fact that a majority of the respondents spoke Afrikaans may have affected their understanding of the questionnaire, since it was in English only. Most of the respondents (N = 214) which is 29.1% were no more than 5 years in the organisation. Lastly, a majority of the respondents fell within the operator (general worker) level, which comprised 59.2% (N = 436) of the workforce.

5.3 PORTABILITY OF THE MEASURING INSTRUMENTS

The research conducted confirmatory factor analysis for each of the constructs. Chapter 3 gave an explanation with respect to the measuring instruments used and their portability in other studies. Most of the measuring instruments have been used in
different cultures and countries; with some on South African samples. For purposes of this study, the measuring instruments demonstrated portability to the South African sample, with exception of the change-oriented leadership instrument. The results related to the reliability and validity of the constructs, the quality of the factor structure, and the goodness-of-fit will follow in the section below.

5.3.1 Change-oriented leadership

Although there are many leadership studies, it is important to understand change-oriented leadership theory in a South African context. This study used the “Managerial Practices Survey” (TRCQ-15G) questionnaire, developed by Yukl et al. (2002). Although the questionnaire consisted of three factors, namely: task-oriented, relations-oriented, and change-oriented, the researcher only used the change-oriented section which consisted of six items. Previous studies have demonstrated acceptable psychometric properties for the questionnaire with Cronbach alpha above 0.70 (Faghihi, 2012; Yukl, 2004). The measuring instrument in this study resulted in a Cronbach alpha (α = .908) which is higher than previous studies.

A study by Ekvall and Arvonen (1994) conducted in Sweden, Finland, and the USA reported Cronbach alpha coefficients for the three dimensions of the CPE model: Change-centred (α = 0.94); Employee-centred (α = 0.93) and Production-centred (α = 0.93). A South African study by Lourens (2001) confirmed the three-dimensional leadership behaviour structure to have portability in a South African context. Based on the CPE model, the three-dimensional leadership behaviour scale can be used to differentiate between the leadership styles of individuals (Lourens, 2001).

Contrary to Lourens’ (2001) findings, a South African study by Bosman (2003) could not find the same factor structure for the three-dimensional leadership behaviour model.
Bosman (2003) found no empirical proof for the third dimension of leadership, in this case change-centred leadership.

Confirmatory factor analysis was carried out on the uni-dimensional construct and the results for the CFI (.973), SRMR (.027), and RMSEA (.088) indicates an acceptable fit. However, with respect to the $S-B \frac{X^2}{df} = 6.76$ value was outside the preferred range for a good fit. The results from the current study found to have similar reliabilities to those obtained from other studies abroad but does not confirm portability in the South African context.

5.3.2 PsyCap

The researcher used the 12-item adapted shortened version of the psychological capital (PCQ) questionnaire (Avey, Avolio & Luthans, 2011a). The questionnaire has four dimensions including efficacy, hope, resilience, and optimism. Many studies across many countries and cultures have found the PCQ 24-item questionnaire to be reliable. The results from this study reported a Cronbach alpha for the four dimensions as follows: efficacy ($\alpha = .764$), hope ($\alpha = .640$), resilience ($\alpha = .480$), and optimism ($\alpha = .669$). It is clear from the results that hope, resilience, and optimism are below the preferred level of Cronbach alpha. Although these three dimensions were below the acceptable level, it did not affect the overall total for PsyCap, which is still acceptable with a Cronbach alpha of $\alpha = 0.848$.

Although research shows that the 12-item PCQ has acceptable reliability in over 12 countries, including South Africa with a Cronbach alpha ($\alpha = .89$) (Wernsing, 2014), very few studies in South Africa are found using the 12-item PCQ. An Indian study in the manufacturing and service industries found the reliability coefficient for the PCQ-12 to be $\alpha = 0.79$ (Pradhan, Jena & Bhattacharya, 2016). One advantage of the PCQ-
12 questionnaire is that it is easier to translate and therefore can be used across cultures. Mind Garden has validated evidence of the PCQ-12 in a number of different languages (see Mind Garden, http://www.mindgarden.com).

Similar to the results of this study, previous publications have consistently shown low internal consistencies for optimism and resilience (Gorgens-Ekerman & Herbert, 2013). The results of their study using the 24-item PsyCap and its four dimensions obtained alpha coefficients of hope (\(\alpha = 0.81\)); self-efficacy (\(\alpha = 0.83\)); optimism (\(\alpha = 0.67\)); and resilience (\(\alpha = 0.69\)) (Gorgens-Ekerman & Herbert, 2013). A longitudinal study by De Waal and Pienaar (2013) found that the reliability coefficient for PsyCap decreased slightly from one period (\(\alpha = 0.69\)) to another (\(\alpha = 0.63\)). The reason for this could be the time difference as to when the data was collected and this could have influenced the results. In addition, their choice of fit statistics may have been insensitive to smaller effects (De Waal & Pienaar, 2013). Luthans et al. (2007) found support for PsyCap as a higher-order construct to be a better predictor of performance and job satisfaction as opposed to the four individual dimensions, particularly in terms of their relationships with performance and job satisfaction. They conducted two studies whereby study 1 measured three samples and study 2 measured two separate samples. Their study revealed that optimism (\(\alpha = 0.69\)) and resilience (\(\alpha = 0.66\)) did not meet the acceptable levels of reliability. The results corroborate other studies where the reliability analysis for optimism and resilience obtained lower reliability (Avey, et al., 2010; Luthans et al., 2007).

Contrary to the results in this study, another South African study found the reliability coefficient for the 24-item PCQ was \(\alpha = 0.91\) and for the four dimensions: hope (\(\alpha = 0.76\)); optimism (\(\alpha = 0.72\)); resilience (\(\alpha = 0.90\)); and self-efficacy (\(\alpha = 0.87\)) (Simons & Buitendach, 2013).

Additionally, the results reported the values of rho_A (\(\alpha = 0.815\)), Composite reliability (\(\alpha = 0.876\)) and an AVE (0.639) to be acceptable. The CFA results obtained in this
study provides evidence of an acceptable fit for $S-B X^2/df = 4.59$ and acceptable fit for CFI (.902), SRMR (.054) and RMSEA (.070). The results for the four-factor model of the 12-item PCQ were found to be reliable for the South African sample.

5.3.3 Psychological empowerment

Spreitzer (1995) developed and validated the four dimensions of the 12-item version of psychological empowerment questionnaire (PEQ). The four subscales of the PEQ and the total scale show highly acceptable internal consistencies and provided support for the construct validity of the PEQ in selected South African organisations (Stander & Rothmann, 2010; 2009).

The findings of the PEQ measurement for this study were acceptable with a total Cronbach alpha ($\alpha = .860$) and for the four dimensions as follows: meaning ($\alpha = .864$), competence ($\alpha = .811$), self-determination ($\alpha = .752$), and impact ($\alpha = .834$). Other South African studies found similar results. Stander and Rothmann (2010) found the following reliability coefficients: competence ($\alpha = .81$); meaning ($\alpha = .89$); impact ($\alpha = .86$) and self-determination ($\alpha = .85$) with the total PEQ ($\alpha = .91$). Another South African study found that the reliability coefficients differ amongst different cultural groups. The reliability coefficients for the total PEQ scale ranged from 0.566 for factor 3 to 0.897 for factor 1 (African groups), and for White groups to range from 0.786 to 0.864 (Kotze, Menon & Vos, 2007). De Klerk and Stander (2014) found the reliability coefficients for meaning ($\alpha = .95$); competence ($\alpha = .90$); impact ($\alpha = .92$) and self-determination ($\alpha = .88$). International studies with respect to a Chinese version of the 12-item PEQ found Cronbach alpha for the dimensions ranging from $\alpha = 0.72$ to $\alpha = 0.83$ with a total PEQ of $\alpha = 0.87$.

In addition to the Cronbach alpha, the rho_A (.761) and composite reliability (.831) were acceptable. With respect to validity, the AVE (.552) was also acceptable.
Furthermore, the CFA analysis on the four-factor model resulted as follows: CFI = .937, SRMR = .066, RMSEA = .071 and the chi-square S-B-X²/df = 4.68. It is clear that the CFA results related to the psychological empowerment questionnaire indicates a good fit with the data. It can be concluded that the current study supports the four-factor model and that the measuring instrument is reliable for the South African sample (Buitdendach & Hlalele, 2007; De Klerk & Stander, 2014; Stander & Rothmann, 2010).

The South African study by Kotze, Menon and Vos (2007) found that when comparing the average scores to international findings, the South African participants seem to feel equally and perhaps more empowered than the international respondents. One explanation is that post-apartheid era employees felt more empowered. It would seem logical that once the era of segregation and discrimination was formally ended that South Africans would have felt more emboldened and, ultimately, more empowered to take charge of their lives and careers. A second explanation could be that South African participants may have responded towards the higher end of the scale. This suggests that the scale be adapted for different cultural groups. A reason for this could be that employees did not understand the fine nuances in the English language. Although this conclusion is largely speculative, the descriptive statistics in this study indicated that a majority of employees (69.3%) were Afrikaans speaking which may have influenced their understanding of the questions.

5.3.4 UWES-9

The shortened and adapted version of the 9-item (UWES-9) measurement scale was used. The UWES-9 was developed by Schaufeli and Bakker (2004). The UWES-9 assesses three dimensions: vigour, dedication, and absorption with three items from each dimension. A study by Schaufeli, Bakker and Salanova (2006) found that the Cronbach alpha for the UWES-9 measurement ranged between α = 0.85 and α = 0.92 across 10 countries, including South Africa. In addition, although both the one-factor
and three-factor model fit the data, it was found that the three-factor model had a slightly better fit to the data than the one-factor model (Schaufeli, et al., 2006).

The Cronbach alpha for the three dimensions was as follows: vigour (α = 0.76), dedication (α = 0.81) and absorption (α = 0.62). Although absorption was slightly lower than the required level of > 0.70 (Nunnally & Bernstein, 1994), the overall total for the Cronbach alpha was (α = 0.88). Buitendach et al. (2016) found the reliability coefficients in their study as follows: dedication (α = 0.78); absorption (α = 0.80) and vigour (α = 0.87) and the total for the UWES-9 (α = 0.91). Geldenhuys, Laba and Venter (2014) found the Cronbach alpha for the UWES-9 ranged between 0.80 - 0.96. Kotze (2017) based his study on a two-factor model which includes vigour and dedication and found the reliability coefficients to be α = 0.81 and 0.895 respectively. De Bruin and Henn (2013) found the Cronbach alpha for the total UWES-9 (α = 0.92)

In addition, the rho_A (.884) and the composite reliability (.92) were acceptable. With respect to validity, the AVE (.793) was also acceptable. The study performed CFA analysis on the three-factor model which resulted in acceptable fit indices for CFI (.937), SRMR (.066), RMSEA (.071) and S-B-X² / df = 1.90. The CFA results, as related to the UWES-9, fit the data. It can be concluded that the current study supports the three-factor model and that the measuring instrument is reliable for the South African sample.

5.3.5 Change-oriented OCB

This study used the adapted version of the change-oriented OCB questionnaire developed by Morrison and Phelps (1999). The 9-item questionnaire was validated through a multi-stage process and it was found the Cronbach alpha to be α = 0.92. The researcher could not find any studies conducted on change-oriented OCB in a South African context. For this study the Cronbach alpha was above the acceptable level (α
Similar results were found in international studies such as Choi (2007) who found the Cronbach alpha at ($\alpha = 0.83$). Seppala et al. (2012) found the Cronbach alpha at ($\alpha = 0.92$).

After performing the confirmatory factor analysis, the results indicated that fit indices were found to be acceptable for the one-factor model. The fit indices were as follows: $S/B \chi^2/df = 3.98$, CFI (.946), SRMR (.039) and RMSEA (.064). This indicates that the instrument was reliable for this study.

In summary, the measuring instruments, namely: PsyCap, PEQ, UWES-9 and change-oriented OCB which were used in this study were found to be reliable and valid for the South African sample in the original conceptualisation of their factor structures. Change-oriented leadership was found to have similar reliabilities to those obtained from other studies abroad.
5.4 RESULTS OF THE SURVEYS

The descriptive statistics for each variable revealed some interesting findings. The descriptive statistics provided mean scores for all the variables of the sample and it was found that all the scores were positively skewed but still within the acceptable range of -1 to +1. The following sections will provide context for the results.

5.4.1 Change-oriented Leadership

Employees were asked six questions relating to whether they perceived their managers to be change-oriented. The results indicated that employees rated their managers moderately. The average rating could indicate that employees did not feel confident that their managers were envisioning new strategies and innovative ideas and that they were not monitoring risks. At the time the managerial ratings were done, the organisation was going through a merger and acquisition. As discussed in Chapter 1, there were a lot of uncertainties and, more specifically, there was a fear of employees losing their jobs and of significant changes within the management structure. Given these uncertainties, one could assume that the employees were not feeling confident about their management since there was not sufficient communication about the future of the organisation.

Change-oriented behaviours are important in terms of initiation and implementation of change and, more so, in uncertain environments. Having a change-oriented leadership style can be a great contributor when leading transformation or making changes within an organisation, especially if the organisation wants to remain sustainable (Ghasemy & Hussin, 2014). In the 21st century, there will be constant changes within the manufacturing industry due to such reasons as: pollution control, finding alternative energy sources, materials, technology and more. Kalyani (2017) noted that any good leader must be willing to learn and change at the same time. This is vital to keep
employees aligned with change so they do not become overwhelmed by the changes affecting them. Hence, having a change-oriented leadership style will be more suitable and therefore vital for the survival of any organisation.

### 5.4.2 PsyCap

The results of the survey indicated that the respondents on average rated highly in this category, meaning they displayed high levels of PsyCap. The same applied for all four dimensions. This also indicated that employees had high hope (M = 4.61), efficacy (M = 4.45), resilience (M = 4.59), and optimism (M = 4.93). However, total PsyCap and the three dimensions were moderately positively skewed and optimism was highly positively skewed.

Research has proven that employees with high levels of PsyCap have higher performance outcomes (Luthans et al., 2007). PsyCap should be an important concept for managers and organisations since it can affect the bottom line. Research has shown that PsyCap influences performance, attitude, behaviour, and well-being outcomes for both individual and organisational levels (Luthans & Youssef-Morgan, 2017). Consequences to having high PsyCap leads to high performance levels, organisational commitment, and job satisfaction which are all desirable outcomes if organisations are to thrive.

This study found that both management and employees felt they can deal with the demands of the organisation given the current environment. Due to the high levels of PsyCap, one can also deduce that employees and managers believed they could cope with the stress (Avey, Reichard, et al., 2011) which is important in the manufacturing industry. The manufacturing industry is a fast-paced environment challenged by having to achieve targets, keep customers happy, deal with machine breakdowns, and accept high levels of absenteeism. Research also indicated that employees high on PsyCap are
capable of dealing with the current organisational change (Avey et al., 2008). Furthermore, the study shows that optimism was scored higher than all the other dimensions. Therefore; although employees were faced with adversity, they still sought to persevere in order to reach organisational targets and work goals.

5.4.3 Psychological empowerment

The scores of employees for the total psychological empowerment was high (M = 4.91). Additionally, the results for the dimensions were also high, namely: meaning (M = 5.24), competence (M = 5.37), and self-determination (M = 4.88). This indicated that employees saw value in their goals and that these goals were aligned to their own personal beliefs. Employees who see meaning in their job role can ultimately result in engagement (Stander & Rothmann, 2010). Management and employees felt confident that they have the right skills and knowledge to successfully perform their jobs. Strong evidence suggested that having high competence has an impact on performance (Wang & Lee, 2009). Choong, Wong and Lau (2011) found that when an employee does not feel empowered by their supervisor they will not feel confident to perform their tasks successfully. Employees who display high self-determination have the motivation to face adversity which, in turn, influences learning and resilience (Wang & Lee, 2009).

Similar to PsyCap, having psychological empowerment is also related to various work behaviours, attitudes, and performance (Wang & Lee, 2009). It is clear from the results of this study that employees displayed a slightly higher level of psychological empowerment than PsyCap. The organisation studied here is operating in a highly technical environment and a lot of money is being invested in training and development. Hence, employees needed to be competent and to have self-determination in order to perform their duties at a high level. Choong, Wong and Lau (2011) suggested that managers should encourage his/her employees to achieve their tasks which would then result in positive organisational outcomes.
5.4.4 UWES-9

The UWES-9 was the only measurement in the study which had published norms. Schaufeli and Bakker (2004) published the norms in the UWES manual. The norm scores were based on a sample of $N = 2313$ from various countries and industries. Respondents in this study compared to the norm scores displayed an average level of work engagement. The total work engagement as well as the three dimensions, with exception of dedication, was scored in the average range. The mean scores for the dimensions were as follows: vigour ($M = 4.30$), dedication ($M = 4.69$), and absorption ($M = 4.39$). Dedication, however, fell into the high range. Literature has revealed that work engagement is linked to positive organisational outcomes such as increased performance and extra-role behaviour (Quinones et al., 2013).

The results indicated that employees displayed high levels of PsyCap and psychological empowerment but not the same with respect to work engagement. One explanation for this is based on Bakker and Leiter (2010) who postulated that work engagement is the personal energy employees bring with them to work. Employees believe that work requires this energy on a regular basis and can be used to solve challenging problems. This researcher explained in Chapter 1 that employees were faced with uncertainty due to structural changes in the organisation. This uncertainty created a stressful environment which did not allow some individuals to have work energy.

Due to the demands from the organisation to meet targets and satisfy customers, employees need to have high PsyCap and psychological empowerment. However, this was not the same for work engagement. Another reason for the average work engagement levels could be that employees are affected by their negative reaction to organisational policies, practices, and structures (Bakker & Leiter, 2010). Research also indicated that in order to increase work engagement, employees needed to have high PsyCap and psychological empowerment which was found to be the case in this study.
5.4.5 Changed-oriented OCB

Change-oriented OCB had 9-items and respondents scored themselves high ($M = 4.71$) meaning that employees displayed a high level of change-oriented OCB. The skewness coefficient fell in the normal the range and the distribution of the responses was moderately positively skewed. According to research, if employees feel they can make changes to their current work methods and procedures, they then try to correct faulty procedures and try to implement solutions to their problems.

In this organisation, employees are required to operate highly technological machinery. There are risks associated with the operations as well as changes that occur all the time. Employees are therefore encouraged to be motivated and to make suggestions to improve work procedures and methods. The researcher alluded to the fact that the organisation placed a lot of emphasis on training. There was also a robust quality management system in place which encouraged employees to display change-oriented behaviours. Quality management systems such as 20 keys, lean management, and six sigma are designed to promote these types of behaviours since these systems focus on improvement of processes, methods, and policies (Sreedharan, Raju & Srinivas, 2017). Their study executed in different organisations, including manufacturing found that implementing quality systems not only helped to improve organisational effectiveness, but also aided in achieving the organisation’s mission (Sreedharan, Raju & Srinivas, 2017).
5.5 EXPLANATIONS FOR THE RELATIONSHIPS IN THE STRUCTURAL MODEL

This study conducted variance-based structural equation modelling using SmartPlus. This section will discuss the propositions and the strength of their relationships. The researcher compared the results from the present study with other studies.

5.5.1 The relationship between change-oriented leadership, psychological empowerment and PsyCap

Change-oriented leadership has been defined by Yukl (2002) as monitoring the environment, encouraging innovative thinking, envisioning change, and taking risks. This study proposed that change-oriented leadership would influence an employee’s psychological empowerment and PsyCap. The following propositions were proposed.

<table>
<thead>
<tr>
<th>Proposition 1</th>
<th>Perceived change-oriented leadership relates positively to psychological empowerment experienced by the employee</th>
<th>Accepted</th>
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<tbody>
<tr>
<td>Proposition 2</td>
<td>Perceived change-oriented leadership relates positively to psychological capital experienced by the employee</td>
<td>Accepted</td>
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</table>

The results found a path coefficient ($\beta = 0.158$) from change-oriented leadership to psychological empowerment. This indicated a small but statistically significant relationship explaining 2% of the variance in psychological empowerment. There was a slightly larger path coefficient between change-oriented leadership and PsyCap ($\beta =$
0.303) thereby explaining 9% of the variance in PsyCap and resulting in a significant relationship.

After an extensive search through a variety of comprehensive databases (i.e. Libraries Worldwide), the researcher could not find any international studies and, more specifically, South African studies linking change-oriented leadership with psychological empowerment and PsyCap.

However, Spreitzer (1999) found a positive relationship between change-oriented leadership and psychological empowerment. Her study found that supervisors who felt empowered were seen by their employees as innovative, inspiring, and upward influencing hence, displaying change-oriented leadership. These findings are consistent with other studies which suggested that leaders demonstrated empowering behaviours through leadership and created positive emotions in their followers (Amundsen & Martinsen, 2015; du Plessis, 2014). Studies have shown that other leadership styles such as positive, authentic, and transformational leadership influence employees’ psychological empowerment and PsyCap (Bester et al., 2015; Du Plessis, 2014; Newman et al., 2014).

It is clear from the results that change-oriented leadership had a greater influence on PsyCap than on psychological empowerment. Psychological empowerment and PsyCap have common elements and both play an important role in the world of positive psychology. However, they are distinct constructs. Psychological capital is an individual positive psychological state of development that consists of self-efficacy, optimism, hope, and resilience (Luthans, Youssef & Avolio, 2007). The positive psychological resources that comprise the core construct of psychological capital are fundamentally of a cognitive nature. Psychological empowerment, on the other hand, is a set of psychological states that are necessary for individuals to feel a sense of control in relation to their work (Spreitzer, 1995).
It is clear from the findings that psychological empowerment and PsyCap are important variables in facilitating and influencing positive organisational outcomes such as work engagement or change-oriented OCB. Although the results of the current study support the propositions, they also provide fertile ground for future researchers to test the hypotheses presented in this section and to look further at the differences between the two constructs.

5.5.2 The relationship between change-oriented leadership and work engagement

The results indicate a moderate to substantial relationship between change-oriented leadership and work engagement ($\beta = 0.189$) with a 34% variance explained by work engagement, which results in a small but significant relationship. The results support the proposition.

<table>
<thead>
<tr>
<th>Proposition 3</th>
<th>Perceived change-oriented leadership relates positively to work engagement experienced by the employee</th>
<th>Accepted</th>
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</table>

There are many studies which found various leadership styles such as authentic, transformational, and ethical leadership influence work engagement (de Klerk & Stander, 2014; du Plessis, 2014; Engelbrecht, Heine & Mahembe, 2017). It was found that those leaders who empower their employees by giving them opportunities to develop themselves in executing their jobs, motivate and inspire them with an ethical vision, who provide them with the freedom to take initiative are fully engaged at work (Engelbrecht et al., 2017).
To the contrary, other studies could not find a significant relationship between positive leadership and work engagement (Nel et al., 2015). This is supported by Arakawa and Greenberg (2007). Stander and Mostert (2013) found that only when positive leadership is mediated through individual strengths and psychological empowerment will employees’ work engagement increase. When the leader focuses on the employee’s strengths, offers positive recognition, and encourages empowerment it will impact that employee’s work engagement.

Other research shows that when employees have a high level of PsyCap, regardless of leadership, they feel more empowered (Joo, Lim & Kim, 2016). Engaged employees use resources such as optimism, self-efficacy, resilience, and an active coping style to assist them to manage and influence their work environment with more success (Bakker & Demerouti, 2007; Luthans, Norman, et al., 2008).

The aim of the study was to investigate whether change-oriented leadership influenced employees’ work engagement. The study found a small but significant effect. The researcher suggests that future studies should investigate the relationship between change-oriented leadership and work engagement for the following reasons: 1) adopting a change-oriented leadership style suggests that leadership responds well to unexpected happenings and also responds well to employees’ input and sees value in it, and 2) change-oriented leaders would benefit South African industries since they would be ready to adjust their focus and meet new demands either internally or externally (Kalyani, 2017).

5.5.3 The relationship between work engagement and change-oriented OCB

Change-oriented OCB as defined by Bettencourt (2004) and Choi (2007) allows employees to be involved in organisational changes and to make suggestions to improve their work environment. Literature has indicated there is a positive relationship
between work engagement and organisational citizenship behaviour, which displays the extra-role behaviour of an employee (Bakker & Demerouti, 2007; Harris, 2012).

<table>
<thead>
<tr>
<th>Proposition 4</th>
<th>Work engagement relates positively to change-oriented OCB displayed by the employee</th>
<th>Accepted</th>
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The aim of this study was to test whether work engagement influences change-oriented OCB. The results of the study indicated a significant relationship between work engagement and change-oriented OCB ($\beta = 0.382$) with a 15% variance explained by change-oriented OCB. Therefore, this study supports the proposition. However, very few studies examined the relationship between work engagement and the fairly new construct of change-oriented OCB.

Research has shown that there is a relationship between work engagement and extra-role behaviours such as OCB (Macey & Schneider, 2008; Schaufeli et al., 2006). Engagement was found to be positively related to OCB that is discretionary behaviour which adds to the effective functioning of an organisation. Additionally, engaged employees are likely to exhibit OCB because they can competently achieve their professional goals and will also feel competent to perform extra-role behaviour (Macey & Schneider, 2008). Given the results of this research, it would be ideal for work engagement to be embedded in organisational policies and culture due to its positive effects. Employees who are energetic, dedicated, and absorbed in their work will be willing to go the extra-mile when executing their tasks. Leaders should work with HR to influence and promote work engagement through job crafting, training, development, and other company activities in order for employees to display change-oriented OCB such as initiating ideas, being proactive, and effecting change in the work environment.
5.6 INDIRECT RELATIONSHIPS BETWEEN VARIABLES

In this study, the independent variables were psychological empowerment, PsyCap and work engagement. The mediation analysis to determine the indirect effects of the variables were conducted by using SmartPLS.

<table>
<thead>
<tr>
<th>Proposition 5</th>
<th>Perceived change-oriented leadership indirectly affects change-oriented OCB through psychological empowerment and work engagement</th>
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<tbody>
<tr>
<td>Proposition 6</td>
<td>Perceived change-oriented leadership indirectly affects change-oriented OCB through psychological capital and work engagement</td>
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</table>

The results from this study indicate that, albeit small, there is a positive indirect effect between change-oriented leadership and psychological empowerment ($\beta = 0.022$) and PsyCap ($\beta = 0.023$); thus, they remain significant predictors of work engagement and change-oriented OCB. Both psychological empowerment and PsyCap partially mediate the relationship between change-oriented leadership, work engagement, and change-oriented OCB. Therefore, propositions 5 and 6 were accepted.

The researcher could not find any other studies where psychological empowerment and PsyCap played a mediating role between change-oriented leadership, work engagement, and change-oriented OCB. However, other studies found positive results where PsyCap mediated the relationship between leadership and work engagement (du Plessis, 2014; Zhong, Li, Liu & Chen, 2016). To the contrary, Nel et al. (2015) did not find a positive relationship between leadership and work engagement; however, when psychological empowerment was added as a mediator, only then did positive leadership increase work engagement. Bester et al. (2015) found that empowering behaviour and
psychological empowerment had an influence on OCB. Their study found that when leaders promote the development of employees, encourage accountability, and lead by example it influences the employees’ psychological empowerment which, in turn, increases OCB. This is supported by Fong and Snape (2015).

Li et al. (2016) found that empowering leadership was positively related to thriving at work and, in turn, influenced change-oriented OCB. Moreover, employees’ autonomy orientation mediated these relationships such that when employees displayed high autonomy orientations their degree of thriving at work was high and more likely displayed change-oriented OCB. Other studies relating to leader-member exchange (Vigoda-Gadot & Beeri, 2011), transformational leadership (Lopez-Dominquez et al., 2013), and empowering leadership (Li et al., 2016) found leadership to influence change-oriented OCB. Although this was not tested in the current study, it could be an excellent opportunity for future research.

A longitudinal study by Choi (2007) revealed that supportive leadership did not influence change-oriented OCB at either the individual or the group level. Irrespective of this, Choi (2007) found that psychological empowerment and felt responsibility for change were significantly correlated to change-oriented OCB. The employees in this study perceived workplace characteristics such as a strong vision and an innovative environment to influence change-oriented OCB.

In summary, this study found change-oriented leadership to have a small impact on work engagement; however, work engagement had a moderate effect on change-oriented OCB. This study further indicates that when psychological empowerment and PsyCap are mediators, the impact of change-oriented leadership on work engagement and change-oriented OCB is strengthened. Hence, if we take PsyCap into consideration, an employee who positively interprets the leader’s vision innovative thinking, and who takes risks with hope, efficacy, resilience, and optimism, then that employee may feel competent that they can make a positive impact on the organisation.
These results will increase work engagement; therefore, when employees feel dedicated to and absorbed in their tasks they will likely display change-oriented OCB.

5.7 RESULTS OF THE STRUCTURAL MODEL

The structural model was defined through PLS path modelling to provide goodness-of-fit indices. It was found that the theoretical framework of the relationships between change-oriented leadership, psychological empowerment, PsyCap, work engagement and change-oriented OCB resulted in an unacceptable fit in terms of the model.

The best predictor of work engagement was psychological empowerment (β = 0.370) whereby other path coefficients had a small effect, but still significant. Additionally, work engagement was found to be a strong predictor of change-oriented OCB. The original model was evaluated using PLS-SEM and showed evidence of a small to moderate path coefficients which were significantly associated with the model. However, the results indicated that the structural model did not present a good fit and, hence, further modifications are suggested. One of the reasons for this could be because the study did not include the relationships between the dimensions of the variables as well as the demographics.

Change-oriented leaders in today's global turmoil should be able to proactively react to change within their environment and ensure that their employees reciprocate in the same way, bearing in mind that change-oriented leaders must encourage positive behavioural outcomes such as PsyCap, psychological empowerment, work engagement, and change-oriented OCBs. It is clear from the study that employees perceive their leaders to be change-oriented, although the descriptive statistics indicates that management comprised only 14% of the workforce.
Previous surveys and focus studies within the organisation revealed that employees found leadership challenging. One of the biggest issues relating to their leaders was transparency and communication or, more specifically, the lack thereof. In the past research, it was revealed that some employees felt they were being managed by fear and could not question the status quo. However, this was not the case in this research; instead there was a clear indication that employees continued to have hope, optimism, and resilience despite the leadership challenges. The researcher alluded to the fact that the organisation has a robust training programme and invests in employees’ development. This could be a reason for employees feeling confident that they are competent to perform their duties and can make an impact on the organisation. This is a suggestion for future research.

5.8 LIMITATIONS

It is common for any study to have limitations and although the study achieved the objectives, the researcher tried to minimise these limitations. The limitations of the study will be highlighted in this section.

Although little empirical evidence was found linking the variables, this study is the first to test the theoretical model. There is a great need for future studies to focus on change-oriented leadership given the need for leaders to be more innovative, proactive in risk-taking, have the ability to envision change and, more specifically, develop positive behaviours in their employees. Future studies should also focus on the antecedents and consequences of the variables and particularly in a South African context.

The survey was done at a single point in time when the organisation was going through a merger and acquisition. The sentiment at that time was that employees were feeling left out and there was a lack of trust due to lack of communication from management. As many of the variables in this study are state-like (i.e. PsyCap, psychological

http://etd.uwc.ac.za/
empowerment and work engagement) and changeable based on external circumstances, the organisational climate at the time of the study may have influenced the experiences and perceptions of respondents. Due to the cross-sectional nature of the data, the results of this study could not determine causal inferences of the relationships between the variables. It is therefore recommended that studies undertake longitudinal research which will analyse how the variables influence each other over time (de Waal & Pienaar, 2013).

A further limitation is that the researcher only included closed-ended Likert scale responses in the survey, rather than open-ended responses, which might have made some employees more willing to complete the survey. This study was conducted in one manufacturing organisation and it might be useful for other studies to be conducted in multiple organisations in a similar industry.

Another limitation could be the language fluency of the employees. A majority of the employees in this organisation were Afrikaans speaking (69.2%) and 5.6% Xhosa (African language). Since the questionnaire was in English only, this could have impacted their level of understanding and interpretation of the English words, since it is not their mother tongue. The result of this could be the employee answered for the sake of answering and leaned towards responding on the high side and not answering truthfully due to their lack of understanding. This could have led to employees not reflecting their true perceptions of how they feel.

Another limitation was the level of education held by employees. A majority of the respondents held a Grade 12 certificate representing 42.8% of the respondents and the second largest group of 29.7% had lower than Grade 12. This could also indicate that employees’ education may have impacted their understanding of the questions asked in the measuring instruments.
Lastly, the biggest limitation to this study was the lack of prior research. The researcher had a broad database to search for the literature. The researcher therefore chose to use variance-based SEM to test the theoretical model due to the exploratory benefits of this approach. However, the structural model should be cross-validated in South Africa, given the limited information on the relationship between change-oriented leadership, PsyCap, psychological empowerment, work engagement, and change-oriented OCB. This gap in research can serve as an important opportunity for future research with respect to the variables and the relationships between them.

5.9 CONTRIBUTION OF THE STUDY

The main objective of this study was to provide new research and shed more light on change-oriented leadership and its influence on other variables. Very limited research has been conducted on this leadership style. Change-oriented leadership is much needed in South Africa, given the economic challenges it is facing (Oppel, 2007; Stander & Rothmann, 2009). The following contributions are highlighted below:

- This study is an important contributor to the positive organisational field. This is the first study where all five variables were investigated within a South African context and serves as a foundation for future research on change-oriented leaderships and its relationship with other variables.

- Literature was advanced by introducing a new empirical model which was tested and resulted in change-oriented leadership to have (although small) but a direct impact on psychological empowerment, PsyCap, work engagement and change-oriented OCB. However, the structural model was not an acceptable fit to the South African data.

- This study constructs a link between the literature on change-oriented leadership
and change-oriented OCB. It further provides an understanding of the critical role of leaders to encourage and influence employees to display change-oriented behaviours (Li et al., 2016).

- The sample size of 736 respondents was more than sufficient to test the theoretical model and included all employees within the organisation.

- The psychometric properties of the constructs add value to South African literature, since the sample was taken from a manufacturing organisation that came from a culturally different backgrounds.

- This study will assist HR and leaders to gain insights into South African leadership traits and create a model to develop future leaders and to develop a change management model for future change processes. The behaviours of change-oriented leadership are geared towards innovation and dealing with unexpected change.

- The researcher agrees with Luthans et al. (2007) that “PsyCap is an untapped human research that can be developed and sustained with the potential to generate competitive advantage” (Newman et al., 2014, p. 133). This study will assist both leaders and HR to understand how and to what extent PsyCap and psychological empowerment can contribute to workplace outcomes at multiple levels.

- Finally, this study will provide a new understanding of change-oriented leadership and change-oriented OCB and expand the literature with respect to the relationships between the five variables.
5.10 RECOMMENDATIONS FOR ORGANISATIONS

Based on the results of this study, the researcher will present a number of recommendations for organisations including the organisation where the study was executed and future researchers.

5.10.1 Policies and procedures

Research shows that there are various human resource management systems developed to specifically assist organisations to gain a competitive advantage and improve their return on investment. These systems include: recruitment and selection, training and development, award systems, and job design which involves the employee in decision making and performance management. Based on research, it is important that HR practices play an important role in organisational performance and in sustaining competitiveness (Albrecht, Baker, Gruman, Macey, & Saks, 2015).

HR professionals should be working to incorporate positive practices into all their policies, starting with recruiting, induction, performance management, and exit interviews. A positive workplace should not just focus on improving or increasing productivity but should create an organisation which attracts talent and focuses on succession planning (Roux, 2014).

Policies which include psychological empowerment, PsyCap, and engagement practices should form a core part of the training strategy, performance management policy, organisational development strategy, retention strategy, and communication policy. HR professionals should recruit with engaged employees in mind. Psychometric assessment prior to recruiting should be performed to assess the potential employee’s state of mind. Using measurement tools like PsyCap is an ideal way to assess employees prior to entering the organisation (Simons & Buitendach, 2013).
5.10.2 Talent Management Solutions

HR talent management solutions is one method whereby the employee can manage his/her own career. These software packages give both HR and the employee insight into the employee’s life cycle from the time the employee enters the organisation and including his/her performance management reviews, training needs, and career progression within the organisation. The transparency of the employee’s performance evaluation makes the employee feel valued and part of his/her own career path leading to enhanced engagement. Implementing an integrated strategic and technological approach to human resource management is one way of improving recruitment, retention rates, and increasing engagement (Hughes & Rog, 2008).

5.10.3 Employee Assistant Programmes (EAP)

It is a known fact that employees come to work with their personal problems. EAP’s are designed to support and assist employees to deal with their problems and in return develop employee well-being. Variables such as PsyCap and psychological empowerment are state-like and can be developed. Research has shown that the support of an employee’s colleagues, team members, and even one’s intimate partner can increase PsyCap levels. EAP’s can assist through counselling should an employee experience any difficulties. How do you develop PsyCap when an employee is not hopeful or optimistic and is experiencing stress at home or in their social environment? Leaders and HR individuals are not always equipped to deal with employees’ everyday life problems, hence EAP assists employees to cope with their daily stress which, in turn, assists them in dealing with change (Attridge, 2009).
5.10.4 Company Surveys

Another way of promoting positive psychology is to perform regular surveys. Surveys should be integrated into the overall strategy of the organisation to continually measure organisational culture to better understand the levels of employees’ positive psychology. Surveys also provide a means whereby employees can give feedback with regards to suggestions and improvement to organisational practices. The downside of surveys is poor follow-up and failure to communicate the results to employees, which was the case in this organisation. No action was taken to remedy the issues employees had with their leaders and, hence, there was no change with respect to their leadership. Therefore, surveys can assist organisations to test levels of psychological empowerment, PsyCap, and work engagement and help find ways to improve on them which, in turn, will increase employees change-oriented OCB as well as the organisations bottom-line (Attridge, 2009).

5.10.5 Training interventions for PsyCap

Luthans, Avey, et al. (2006) developed the Psychological Capital Intervention (PCI) to improve each of the four dimensions. This short workshop focuses on specific exercises developed for each of the dimensions. Reichard, Dollwet and Louw-Potgieter (2013) conducted a longitudinal study on the impact of PsyCap training over time. The study revealed that the training effects were maintained for both cross-cultural PsyCap and cultural intelligence for over one month. Their study supports the generalisability of the PsyCap construct in a cross-cultural setting as well as the effectiveness of a targeted training intervention in both a U.S. and South African sample.

Luthans & Youssef-Morgan (2017) outlined a few training interventions to develop HERO. This is depicted in Figure 5.1 below.
Russo and Stoykova (2015) focused on the effectiveness of the PCI facilitated by different trainers over a one-month period. They trained students and professionals and found both theoretical and evidence based results that the PCI proved an effective and efficient methodology that HRD professionals could use.

This researcher found specific training interventions aimed at developing the state-like construct of PsyCap. For example, a consulting firm in the Netherlands studied the effects of their own PsyCap training and found that the stress levels of students decreased when PsyCap was raised (Steeneveld. 2015). Their training program focusses specifically on the four dimensions including hope, optimism, resilience, and self-efficacy. Higher PsyCap was found to reduce absenteeism as well as increase

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**Figure 5.1 Psychological Capital Intervention (PCI) model**

*Source: Luthans & Youssef-Morgan (2017, p. 358)*

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**Table 5.1: Psychological Capital Intervention (PCI) Model**

<table>
<thead>
<tr>
<th>Focus on process of HERO development</th>
<th>Examples of developmental tools</th>
<th>Proximal outcomes: Individual PsyCap, cPsyCap, aPsyCap</th>
<th>Sustainability examples</th>
<th>Distal evidence-based desirable outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hope</td>
<td>SMART goal setting</td>
<td>HOPE</td>
<td>Periodic coaching</td>
<td>HIGHER PERFORMANCE and Satisfaction</td>
</tr>
<tr>
<td>Goals and pathways design</td>
<td>Goal setting exercise</td>
<td>EFFICACY/CONFIDENCE</td>
<td>Face-to-face</td>
<td>Happiness</td>
</tr>
<tr>
<td>Implementing scenario and obviating planning</td>
<td>• Goals</td>
<td>RESILIENCE</td>
<td>Online</td>
<td>Commitment</td>
</tr>
<tr>
<td>Efficacy</td>
<td>• List barriers</td>
<td>REALISTIC OPTIMISM</td>
<td>Apps</td>
<td>Well-being</td>
</tr>
<tr>
<td>Experiencing success and modeling relevant others</td>
<td>• List ways around barriers</td>
<td>• Scheduled reminders</td>
<td>Engagement</td>
<td>Creativity</td>
</tr>
<tr>
<td>Persuasion, positive feedback, and arousal</td>
<td>Do three positive things/interactions each day</td>
<td>• “Happily” usage</td>
<td>Mindfulness</td>
<td>Innovation</td>
</tr>
<tr>
<td>Resilience</td>
<td>• Use rubber bands on wrist to remind</td>
<td>Periodic inspirational videos</td>
<td>Hardiness</td>
<td>Hardiness</td>
</tr>
<tr>
<td>Identifying and building assets/avoiding risks</td>
<td>Keep nightly log/diary of three things to be grateful for each day</td>
<td>• TED talks</td>
<td>Identification</td>
<td>Citizenship</td>
</tr>
<tr>
<td>How to affect the influence process</td>
<td>Use contingent positive reinforcement</td>
<td>• Sports</td>
<td>Relationship satisfaction</td>
<td>Relationship satisfaction</td>
</tr>
<tr>
<td>Optimism</td>
<td>• Recognition</td>
<td>• Music</td>
<td>Health satisfaction</td>
<td>Health satisfaction</td>
</tr>
<tr>
<td>Interpret, attribute events positively</td>
<td>• Appreciation</td>
<td>Video/smartphone games</td>
<td>Voice</td>
<td>Voice</td>
</tr>
<tr>
<td>Glass half full</td>
<td>• Positive feedback</td>
<td>• “SuperBetter”</td>
<td>Problem-solving</td>
<td>Safety</td>
</tr>
<tr>
<td>Developing positive expectancy</td>
<td>Write gratitude letter</td>
<td>• Interactive, strategic</td>
<td>LOWER</td>
<td></td>
</tr>
<tr>
<td>• Hand-write</td>
<td>• More than thank-you note</td>
<td>Gamification for continual PsyCap engagement</td>
<td>Stress</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Relative, teacher, mentor, friend, co-worker, boss</td>
<td>• Tracking</td>
<td>Anxiety</td>
<td></td>
</tr>
<tr>
<td>Balanced well-being</td>
<td>Balanced well-being</td>
<td>• Achievements</td>
<td>Depression</td>
<td></td>
</tr>
<tr>
<td>• Relationships</td>
<td>Relationships</td>
<td>• Social networking</td>
<td>Burnout</td>
<td></td>
</tr>
<tr>
<td>• Exercise, relax, exercise</td>
<td>• Exercise, relax, exercise</td>
<td>• Challenges and competing</td>
<td>Substance abuse</td>
<td></td>
</tr>
<tr>
<td>• Meditate and Yoga</td>
<td>• Meditate and Yoga</td>
<td></td>
<td>Negative affect</td>
<td></td>
</tr>
<tr>
<td>• Hydrate and eat right</td>
<td>• Hydrate and eat right</td>
<td></td>
<td>Cynicism</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Turnover intent</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>Deviance</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Work-family conflict</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>BMI (body mass index)</td>
<td></td>
</tr>
</tbody>
</table>
performance and job satisfaction. Research has shown that when employees experience positive emotions it broadens their way of thinking which then builds their resources to allow them to become more resilient, satisfied, and engaged at work (Steeneveld, 2015).

Kinley and Ben-Hur (2015) found that new and exciting development programmes, such as gamification, seem highly relevant to boost PsyCap. Gamification involves the application of gaming principles in a nongame setting. The gamification tools are designed to develop resilience and overcome life challenges. More than a million players are currently leveraging this game to improve their well-being. Skills learned in such games are expected to transfer to real life and there is initial scientific evidence that these games do help achieve desired outcomes (Kinley & Ben-Hur, 2015). As an example, companies such as Ford used gamification principles to encourage their employees to complete online learning material, and T-Mobile did the same to promote customer service tools, with significant improvement in customer satisfaction (Kinley & Ben-Hur, 2015). The aim of gamification is to motivate, reward, and develop the strengths as well as increase personal, social, and psychological resources which are aligned to positive psychological principles. The key to successful application of gamification to the workplace is employee consent (Mollick & Rothbard, 2014).

5.10.6 Coaching and Mentoring

Work engagement has been shown through meta-analysis to relate to key indicators of performance such as customer satisfaction, turnover, safety as well as productivity (Harter et al., 2002). Engagement is seen as developing from a perspective of positive psychology as it also focuses on human strengths and optimal performance rather than on weaknesses and malfunctioning (Seligman & Csikszentmihalyi, 2000). Engagement must become part of organisational strategies and policies. Top management must believe in engagement before it can be implemented. HR should not be the only drivers, although HR professionals should become more energized when driving engagement.
interventions. One way of developing engagement within leaders and HR professionals is through coaching and mentoring.

Coaching and mentoring is a method of improving performance, skill, and engagement. Coaching of employees can either be done by the direct manager via direct discussion and guided activities to improve tasks and overall performance. However, the manager must be trained appropriately to be able to coach or mentor an employee. Coaching is best when facilitated through the direct manager or an internal coach (Jones, Woods & Guillaume, 2015). Mentoring for leaders is a professional relationship with an experienced person to develop specific skills or knowledge. These are normally face-to-face discussions and specific development plans are outlined and further developed through reflections of the current situation. Other ways of improving engagement in an organisation is through career pathing, improved feedback and communication, and developmental opportunities, “Every program in HR must address issues of culture and engagement: how we lead, how we manage, how we develop, and how we inspire people. Without strong engagement and a positive, meaningful work environment, people will disengage and look elsewhere for work” (Bersin, 2015, p. 1). Therefore, in the context of change, coaching and mentoring will encourage employees to become more engaged and this, in turn, will motivate employees to think and perform their duties differently cultivating an engaged and high performing culture.

5.10.7 Job Crafting

Another way of promoting engagement is job crafting. Job crafting is defined as “the physical and cognitive changes individuals make in the task or relational boundaries of their work” (Wrzesniewski & Dutton, 2001, p. 179). A study by Vogt, Hakanen, Brauchli, Bauer and Bauer (2015) found that job crafting predicted both work engagement and an employee’s PsyCap and should be encouraged in organisational policies. Job crafting allows the employee to makes changes to their own job design
which encourages a number of positive outcomes including work engagement, job satisfaction, resilience, and thriving. These positive outcomes will elevate employees’ sense of hope, optimism, and self-efficacy. Since job crafting allows the employee to make changes to their own job design, he/she will see more meaning in their job, will feel more competent, and will make a more positive impact on the organisation.

5.10.8 Meditation / Mindfulness

More recently, CEOs and senior management are embracing meditation as part of their daily practices. Meditation, as related to mindfulness, sharpens such skills as attention, memory, and emotional intelligence. Research shows that meditation builds resilience and is one way of dealing with anxiety. Meditation is also a way of strengthening the ability to control one’s emotions such as patience and empathy. Other benefits of meditation include improving one’s relationships with others and also enhancing one’s focus and creativity (Seppala, 2015). Top CEOs from Fortune 500 companies have said that meditating gives them an edge in the competitive business world. Meditation can be one way to develop change-oriented leaders to deal with unexpected happenings and to anticipate issues before they arise.

Rinkoff (2017) found that Mindful Based Interventions proved to increase leaders’ social and emotional effectiveness on a professional level. From the evidence conducted, leaders indicated that they had greater sense of resilience, efficacy, empathy, self-management of emotions, and enhanced ability to empower others. The study found that developing leaders with mindful-based interventions improved leaders’ efficacy, particularly during increasing rate of change and pace of work demands in today’s environment.
5.10.9 Work environment

A pleasant and fun work environment is another way of getting employees engaged. Companies like Google offer organic food, free haircuts, in-house massages and many more activities to attract and keep the best and brightest talent. Google values the opinions of their employees; thus, employees feel driven and energetic and are dedicated to come to work, hence, they are engaged. Pinterest’s employees describes their work environment as innovative, productive and inspiring. These are the characteristics which a change-oriented leadership drives within the organisation. The idea of coming to a warm, fun work environment where your opinions are valued and you are part of the decision-making inspires employees to be optimistic, dedicated and absorbed in their environment (Vorhauser-Smith, 2013).

5.11 RECOMMENDATIONS FOR FUTURE RESEARCH

Given the limitations of literature linking the variables in this study, there is a definite need for future researchers to expand on the relationships between these variables. It is suggested that researchers further explore the new constructs of change-oriented leadership and change-oriented OCB and its relationship with PsyCap, psychological empowerment, and work engagement. This study should be cross-validated in both South Africa and other countries to provide new insights on the relationships between the variables.

Although the measuring instruments showed adequate reliability within a South African context, some of the dimensions showed lower reliability in PsyCap and work engagement than other measuring instruments. The lower reliability of the dimensions could affect the detection of expected effects. It is suggested that future research adopt an exploratory approach to better understand the dimensions of the measuring instruments. Since change-oriented leadership and change-oriented OCB are new and
have not been tested in a South African environment, future research could build further on these measuring instruments.

It is also recommended that a longitudinal study be conducted since PsyCap and psychological empowerment are state-like behaviours and can change over time. The change of these state-like behaviours can be dependent on many factors such as an employee’s well-being, stress, and the relationship with his/her manager. It is therefore recommended that future researchers undertake a longitudinal study to determine whether the variables change over time and, more so, in a South African environment.

The structural model in this study resulted in an unacceptable fitting model. Even though the relationships between the individual variables were found to be statistically significant, it appears that the overall conceptualisation of theoretical model can be improved. Future researchers may want to consider cross-validating the relationships between the variables found in the present study; in conjunction with other organisation variables. As such, possible lack of discrimination between the variables could be identified.

There are many interventions and models available to either increase or improve variables such as PsyCap, psychological empowerment and work engagement. This author is of the opinion that future research should focus on evaluating the training programs designed to improve these variables. This would assist HR professionals with empirical research to integrate positive psychology in their policies and HR practices. It would also give HR professionals a more convincing argument to sell to their leaders. Additionally, understanding what interventions or strategies are effective to improve employees’ PsyCap, psychological empowerment, work engagement and change-oriented OCB, can win leaders support and, in return, convince leaders to change.
5.12 CONCLUSION

The main aim of this study was to examine relationships between change-oriented leadership, psychological empowerment, PsyCap, work engagement, and change-oriented OCB within a manufacturing organisation. The study found that change-oriented leadership had a moderate effect on PsyCap and a small effect on psychological empowerment; however, a small but a statistically significant relationship was found between change-oriented leadership and work engagement and work engagement had a moderate statistically significant effect on change-oriented OCB. The study also proved that when change-oriented leadership is mediated by psychological empowerment and PsyCap, employees display work engagement and change-oriented OCB.

Although employees displayed psychological empowerment, PsyCap, work engagement, and change-oriented OCBs there could be a number of reasons why disparities exist. Firstly, the manufacturing environment is production-oriented and reducing costs is always on the agenda. Very little attention is focused on health and well-being of employees and, therefore, very little is done to promote a positive psychological environment. If there is a lack of awareness on wellness within the organisation, employees’ perception of psychological capacities will be negatively affected (Bester et al., 2015).

To a large extent, leaders are failing in the South African environment and there is a clear need for improving and developing strategies to improve employees’ levels of engagement (Kelly, 2017). More so, leaders are not convinced that engagement will indeed have an impact on the bottom line, even though research indicates that. Positive psychology cannot be driven by HR alone and since employees look up to their leaders for guidance, positive outcomes such as work engagement and change-oriented OCB must be driven by leaders.
In our complex global environment, leaders are struggling to keep up with change. Whether it be organisational competitiveness, new knowledge and skills, employee well-being, global warming, politics, unemployment, or social struggles, change is inevitable and affects us all in one way or the other. Organisations are in need of change-oriented leaders to deal with these unexpected challenges affecting both employees and organisations. A good leader must be willing to learn and change at the same time.

Leaders need to see the bigger picture and need as well to have great vision. Employees depend upon leaders to guide them and to provide them with the necessary resources to enhance psychological empowerment, develop PsyCap, promote engagement, and become change-oriented. It should be easy to deal with change because it can be relatively easy to develop human capital through a change management process. However, it still requires a change-oriented leader to envision that change, to develop innovative ideas, to implement those ideas, and to monitor the risks. The question for future researcher is this: How does one develop work engagement and change-oriented OCB at the same time we struggle to develop change-oriented leaders?
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