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The relationship between psychological capital, job crafting and work engagement of academic staff at South African universities

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A mini-thesis submitted in partial fulfilment of the requirements for the MA degree in the Faculty of Economic and Management Sciences of the University of the Western Cape

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ABSTRACT

The subsequent research study centered around identifying the nature of the relationship between job crafting, psychological capital and work engagement of full-time academics in South Africa. The main focus of the research was on indentifying whether psychological capital had an influence on work engagement levels as well as which job crafting dimensions mediated the relationship between psychological capital (PsyCap) and work engagement. Numerous research studies have focused on establishing and examining the nature of the relationship between PsyCap and work engagement but in the constant changing world of work the nature of this relationship should be further explored, and a focus on the academic setting could help further that level of understanding. As job crafting gains more prominence in the world of work, the role job crafting plays in the relationship between psychological capital and work engagement should also be further explored.

An online survey consisting of four questionnaires namely, a biographical questionnaire, Psychological Capital Questionnaire (24 items), Job Crafting Questionnaire and Utrecht Work Engagement Scale, was sent out to academics across 7 institutions in South Africa. A sample of 156 responses was collected. The data was analysed using correlational analysis as well as Process macro to identify the indirect effect of the job crafting dimensions. Results from the correlational analysis identified that a positive relationship existed between PsyCap and work engagement. The indirect effect identified that only two job crafting dimensions namely, increasing challenging job demands and increasing structural resources, successfully mediated the relationship between PsyCap and work engagement of full- time academics.

Keywords: Academics, Work engagement, Job Crafting, Psychological Capital, , increasing structural resources, increasing challenging job demands, increasing social resources, reducing hindering job demands, process macro, correlation analysis

DECLARATION

I declare that *The relationship between psychological capital, job crafting and work engagement of academic staff at South African universities* is my own work, that it has not been submitted for any degree or examination in any other university, and that all sources I have used or quoted have been indicated and acknowledged by complete references.

Full Name: Christopher Donough

Signed: C.E.DONOUGH

Date: 08 November 2022

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CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION AND BACKGROUND

The world of work is rapidly changing and the way people go about doing their job is forcing them to look at the work environment in new and different ways. Recently, the Covid-19 virus has impacted the global economy in ways that nobody anticipated, forcing many individuals, including lecturers at universities, to find new and alternative means to go about doing their daily tasks. Lecturers now face a new challenge in that they have to adapt to new modes of teaching, such as online learning. Whilst technology has increased in terms of sophistication and ease of use, online learning was unchartered territory for most academics. The sudden shift caused an increase in the levels of fear, uncertainty and stress in academics and created a stronger divide in the relationship between students and academics as academics have to attempt to adjust and deal with new challenges students face in terms of the virtual classroom. (Dison et al., 2022; Fernandez & Shaw, 2020; Moodley, 2022). Staniscuaski et al. (2020) stated that Covid-19 has had an even greater impact on academics who are also mothers as they not only have to deal with a shift in their usual way of working but now may have to take on additional tasks such as homeschooling their children and doing more household tasks. Although Staniscuaski et al. (2020) only reported on academics who fulfil a motherhood role, the additional task of caring for children or elderly parents, homeschooling and enhanced domestic duties likely impacted all academics. However, it is not just mothers who are facing challenges in terms of remaining engaged in their work during the Covid-19 pandemic. Hardman et al's. (2020) study found that academics' level of work engagement during the pandemic was affected by various challenges that impacted their psychological well-being.

Apart from challenges related to the Covid-19 pandemic, academics face numerous challenges that could impact their ability to remain engaged. Dhanpat et al. (2019) attempted to identify a six-factor model that describes certain demands and stressors that academics face in their world of work. These six factors are workload, higher education unrest, change management, decolonisation, online teaching and learning, and psychological safety (Dhanpat et al., 2019; Naidoo-Chetty & Du Plessis, 2021). The Covid-19 pandemic's impact on the work sector would most likely amplify these already existing stressors that academics

face. In this ever-present changing work landscape, understanding how individuals stay engaged in their work and how these changes impact their engagement levels is becoming more and more crucial. Based on the ongoing impact, the need for academic staff to be engaged in their work and for institutions to understand how to keep them engaged remains an important field to study. Al-Jubari (2014) conducted a qualitative study on work engagement amongst academic staff. Their study found that academics' engagement levels are generally high. However, institutions should try to investigate ways to help improve the satisfaction levels of academics which could, in turn, lead to the employees being more engaged in their work. Ludviga and Kalvina (2015) indicated that engaged employees tend to believe in their organisation, have a desire to work to make things better, have a better understanding of the business context, are respectful and helpful to colleagues who are willing to go "the extra mile" and keep up to date with developments in their field. Whilst engagement is a major research area in all professions, so are the resources that employees rely on to sustain themselves.

According to Vîrgă et al. (2020), quite a few research studies have established psychological capital (PsyCap) as a personal resource that counteracts the adverse effects of emotionally draining professions. Personal resources, such as PsyCap, are essential in equipping professionals to handle demanding jobs and protect their well-being. Furthermore, various studies have confirmed the influence of PsyCap on work engagement (Kotze, 2018; Sutrisno & Parahyanti, 2017). Kotze (2018) further stated that employee satisfaction with job resources, such as social relations, work organisation and the work task itself, has a positive impact on the dimensions of work engagement which seems to support some of the findings made by Al-Jubari (2014).

Bakker and Albrecht (2018) reported that another area of focus in work engagement includes interventions that enhance employee work engagement levels. Petrou et al. (2016) described job crafting as the mechanism by which employees alter their task boundaries (adding or removing job tasks), cognitive boundaries (how employees view their work and work relations) and relational boundaries (their relationships with co-workers) in relation to their job. Job crafting can be seen as a mechanism in which employees attempt to increase task variety or change relations at work and how employees deal with job resources (Kamaeswari & Mohideen, 2016). This focus is on how employees influence their own levels of engagement through job crafting (Bakker & Albrecht, 2018). Tims (2012) highlighted that

numerous professional positions, such as teachers, general practitioners and consultants, allow for job crafting. One could therefore argue that academics, as knowledge workers, may also benefit from engaging in job crafting. Some advantages of job crafting are that it enables individuals to experience more meaning in their work which, in turn, translates to them being more productive, it increases employee commitment to the organisation and their engagement levels within their work; these employees are also known to exhibit organisational citizenship behaviour (Kamaeswari, 2017). In turn, managers benefit from processes where employees are already engaged which leads to an increase in employee well-being (Kamaeswari, 2017).

Bakker, Tims and Derks (2012) stated that whilst a positive relationship does exist between job crafting and work engagement, a reversed causal relationship may equally exist. That is, those who have higher levels of work engagement may be more prone to engage in job crafting behaviours. The authors further stated that employees who craft their job will more likely be engaged and can be expected to work in resourceful and challenging environments. Wingerden et al. (2017) attempted to analyse the impact of personal resources and job crafting on work engagement and performance. Their study's results suggested that job crafting interventions effectively motivate individuals to engage in their work. Furthermore, their findings strengthen the Job Demands-Resources (JD-R) Theory which positions job crafting as an important element to gain resources that could lead to work engagement. Their findings also suggested that job crafting interventions that incorporate personal resources (such as PsyCap) lead to greater in-role performance. The study conducted by these researchers provided strong evidence that both PsyCap and job crafting seem to have a positive effect on work engagement. Researchers such as Bakker et al. (2012) argue that job crafting can help individuals work in resourceful and challenging environments. This suggests that in the current work environment, engaging in job crafting and its various elements, such as reducing hindering job demands, could assist individual employees and help them remain engaged in their work tasks despite the sudden change in how work is conducted.

As job demands increase, employees' physiological and psychological resources become increasingly drained. If attention is not given to these factors, it will lead to an increase in negative work outcomes, especially if enough essential resources are unavailable for the individuals (Chen et al., 2017). Therefore, understanding how employees manage their increasing job demands and are able to reduce or eliminate job demands that are hindering

them has gained further importance. In light of the Covid-19 pandemic, understanding this has gained more importance, especially due to the new demands placed on employees.

1.2 PROBLEM STATEMENT

Work engagement is one of the most widely studied concepts in the organisational behaviour domain as demonstrated by a number of researchers (Adjovu, 2015; Bakker & Albrecht, 2018; Costantini et al., 2017; Govender & Bussin, 2020; Kotze, 2018; Louw & Steyn, 2021). Listau et al., (2017) highlighted how research, such as that conducted by Bakker and Demerouti (2007), has identified the positive effect that both job and personal resources have on work engagement and how work engagement, in turn, positively reinforces these resources. Faskhodi and Siyyari (2018) highlighted that many studies have been conducted on work engagement with many of those studies focusing on how work engagement positively impacts organisations, individuals and their level of job satisfaction. Shin et al. (2018) further elaborated that a rapidly changing work environment requires engaged workers to exist within the organisation as they tend to possess greater mental health and work with more enthusiasm. They, however, suggest that whilst work engagement has become a popular field of interest for academics, there has been less focus on how working individuals who use job crafting become engaged in their work. Several studies have been conducted on the impact of the Covid-19 pandemic on employee engagement levels. With many employees having to shift to remote work and having to deal with added challenges of managing their home life in a pandemic, researchers became interested in how this influenced the employee's engagement levels. Conducted research (Mäkikangas et al., 2022; Pass & Ridgway, 2022) showed that the move to remote work did influence work engagement. Studies (Toscano & Zappalà, 2021; Žnidaršič & Bernik, 2021) found that in terms of engagement and productivity, employees who do not have children tend to have higher levels of engagement than those who do. The impact and influence of work engagement were also affected in terms of individuals who had less responsibilities, such as not having children; the influence of engagement was greater than those who did have children.

The influence of the Covid-19 pandemic on certain PsyCap dimensions, such as self-efficacy and resilience, was also examined. Family support was found to aid in building employees' resilience levels during stressful times. Likewise, as in prior studies, employees' engagement levels were still influenced by employees' self-efficacy levels (Toscano & Zappalà, 2021; Ojo et al., 2021). Though a link between PsyCap and work engagement has been thoroughly

researched and reported on, the recent Covid-19 pandemic has impacted numerous employees and exposed them to job demands that they may not have experienced before or experienced in such an intense way. Even for those with high levels of self-efficacy, optimism, hope and resilience (the dimensions of PsyCap), these new challenges could serve as a barrier that could, in turn, impact their level of engagement. For academics, new demands such as shifting to online learning, course and assessment changes, dealing with added pressure from students, as well as home life challenges, all serve as potential threats that could impact their ability to remain engaged in their work. Whilst job crafting remains a way in which these individuals could buffer the effects of these potential threats, failing to find a way to deal with or decrease job demands may lead to individuals depleting their personal resources (such as PsyCap). In line with the Conservation of Resources Theory (Hobfall, 1981), this may mean that they are becoming less engaged, and thus, this could potentially impact their productivity and well-being. For this purpose, the main focus of this study will be to examine the effect that the four job crafting dimensions have on the relationship between the PsyCap and work engagement levels of academics.

1.3 RESEARCH QUESTIONS

The research initiating question is therefore: Does job crafting influence the relationship between psychological capital and work engagement?

Sub-questions for this research study are as follows:

- What is the relationship between psychological capital and work engagement?
- Do job crafting behaviours (that is, decreasing hindering job demands, increasing social resources, increasing structural resources, increasing challenging job demands) influence the relationship between employees' levels of PsyCap and their work engagement?

1.4 RESEARCH OBJECTIVES

The objectives of this study are:

- To determine the relationship between PsyCap and work engagement.
- To determine the indirect effect of job crafting behaviours (that is, decreasing hindering job demands, increasing social resources, increasing structural resources, increasing challenging job demands) on the relationship between PsyCap and work engagement levels.

1.5 SIGNIFICANCE OF THE STUDY

Ahmed (2019) suggested that whilst much attention has been placed on work engagement and how it relates to an employee's overall well-being and how to increase it, less focus has been placed on the factors that deplete the resources necessary for engagement. This, in turn, means that there is less focus by researchers on what factors decrease work engagement. Ahmed (2019) further stated that more empirical research is needed to analyse the relationship between job demands and work engagement. PsyCap is often viewed by researchers, such as Tims and Bakker (2012), as a personal resource that could lead to work engagement and is considered an important aspect of the JD-R model. Numerous research studies have been conducted on the relationship between PsyCap and work engagement; most have suggested that a positive relationship exists. However, there has been less research done on this relationship in the current context, such as the Covid-19 pandemic. Previous research, such as that conducted by Nkansahanokye (2018), has highlighted that all resources that make up PsyCap serve as indicators and predictors of work engagement. Having been in the midst of a pandemic, it is important to gain a better understanding of the relationship between psychological capital and work engagement. One way to cope with these factors that deplete resources needed for work engagement is job crafting. Numerous studies have been conducted but have produced slightly contradictory results regarding job crafting's effect on work engagement. Whilst research conducted by De Beer, et al. (2016), as well as Robledo et al. (2019), found that job crafting does have a positive effect on work engagement, others such as Aldrin and Merdiaty (2019) found little evidence to fully support these findings.

There seems to be a difference of opinion concerning whether or not job crafting has a positive effect on work engagement. With the increase of job demands on academics and less research on the relationship between PsyCap and work engagement during the pandemic, it is important to understand whether all dimensions of job crafting positively affect the relationship between psychological capital and work engagement. The findings of this study could potentially add more value to the existing body of literature within the Covid-19 context.

All four job crafting dimensions will be examined. This will be done to determine the extent to which job crafting influences psychological capital and work engagement. Due to the Covid-19 pandemic, pressure was mounting on academics (as with all work staff) to adjust to

the new way of doing their job. Therefore, there may be more job tasks that deplete the individual's ability to remain engaged in their work. For the purpose of this research, finding out if academic lecturers can and do craft their job and what impact it may have on their ability to remain engaged in their work has gained importance.

1.6 DEFINITION OF TERMS

Psychological Capital

Psychological capital is defined as an individual's positive state, characterised by high levels of self-efficacy, optimism, hope and resilience (Luthens, 2002).

Work Engagement

Work engagement is a state of mind filled with positive work-related aspects, characterised by vigour, dedication, and absorption (Schaufeli et al., 2006).

Job Crafting

Job crafting is defined as making small changes within the boundaries of one's work by either seeking demands/challenges, decreasing job demands (for example, combining tasks) or seeking social resources (Tims & Bakker, 2010).
The above will be discussed further in Chapter 2.

1.7 RESEARCH CHAPTER OUTLINES

Chapter one serves as an introduction where the research questions, objectives and significance are discussed. The most important constructs investigated in this research project are also briefly defined.

Chapter 2 focuses on conceptualising a literature framework consisting of the variables investigated in the current study. Furthermore, the relationship between PsyCap, job crafting and work engagement is examined with references made to other research studies which have also investigated these relationships. The chapter concludes with the investigated hypotheses.

Chapter 3 addresses the research design used to carry out the research. The sample, data collection procedure, instruments (and psychometric properties) and statistical techniques adopted to test the hypotheses are discussed.

Chapter 4 highlights the results of the processed data. It examines the statistical meaning behind the processed data and its various relationships. The findings are examined to indicate whether the hypothesis of this study has been accepted or rejected.

Chapter 5 focuses on discussing the findings (identified in chapter 4) and whether they support what has already been identified regarding previous studies on the examined variables. Limitations of the study are highlighted and the chapter concludes by putting forth recommendations for future research as well as for the organisation.

1.8 CONCLUDING REMARKS

The impact job crafting has on other variables, such as work engagement and psychological capital, has been an area of interest for researchers for years. Many have studied the impact these variables could potentially have on one another. However, in light of the pandemic and changes to the working world, how these variables influence one another needs to be re-examined.

This chapter touched on various researchers' opinions regarding the main variables of the current study as well the need for the study. The definitions of the variables used within the current study were also highlighted. A short outline of this research study was also provided.

The ensuing chapter will provide a theoretical framework of the variables underpinning this research.

CHAPTER 2:

LITERATURE REVIEW

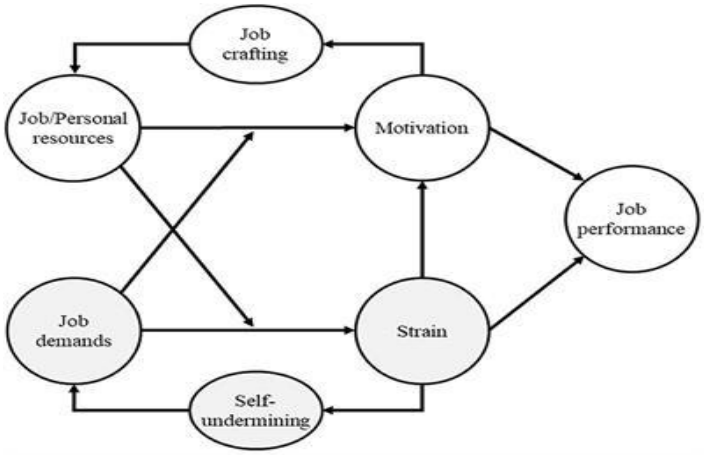
2.1 INTRODUCTION

This literature review aims to discuss the theoretical framework used for the study and to critically review the available literature relating to the study's variables, namely job crafting, psychological capital and work engagement. This will be done by discussing these variables in terms of definitions, sub-dimensions and empirically reported relationships. Thereafter, hypotheses will be formulated originating from the literature.

2.2 THEORETICAL MODEL

The Job Demands-Resources model (JD-R model), highlighted by Bakker and Demerouti (2008), was used as a framework for the current study. According to Schaufeli and Taris (2014), the current version of the JD-R model proposes that high job demands lead to strain, whilst high resources lead to increased motivation and higher productivity. Each of the variables that form the basis of the current study fall directly in the scope of the JD-R model. The model also provides support for suggesting that relationships exist between the three main variables (PsyCap, work engagement and job crafting) that were investigated in the current study.

Figure 2.1 *Job Demands-Resources Model (JD-R)*



Source: Demerouti. (2017). *Leadership and Job Demands-Resources Theory: A Systematic Review*. https://www.frontiersin.org/articles/10.3389/fpsyg.2021.722080/full

The JD-R model is derived from the job demands resource theory and is a model that focuses on encouraging the well-being of employees (Janse, 2019). It suggests that stress arises from an imbalance between job requirements and the resources the employee has available to meet those requirements. Demerouti and Bakker developed the JD-R model in 2006 as an alternative to existing models for employee well-being. According to Bakker and Demerouti (2017), Job Demands-Resources theory proposes that all job characteristics can be classified into two main categories: job demands and job resources, each having unique properties and predictive values. Job demands can be seen as work aspects that refer to the energy spent to do work tasks and addresses factors such as workload, complex tasks and conflict. Workload and complexity can be seen as challenging job demands that push employees to do well in their work whilst conflict can be seen as hindering job demand. Job resources are the tools related to work that aid employees in dealing with these job demands and help with goal achievement (Bakker & Demerouti, 2018). Jantti (2018) further stated that job demands refer to physical, psychological, social or organisational aspects of the job that require physical or/and psychological effort from the employees.

Demerouti and Bakker (2011) highlighted that job resources refer to physical, psychological, social or organisational job aspects that aid in goal achievement and reduce the cost of job demands, stimulating personal growth and learning and development. Xanthopoulou et al. (2007) as well as Demerouti and Bakker (2011) further highlighted that an extension to the JD-R model is the inclusion of personal resources such as an individual's resilience, self-efficacy, optimism and self-esteem which can predict positive work engagement. These personal resources make up the concept of Psychological Capital (PsyCap). The JD-R model outlines these components, as well as personal resources, which is what individuals bring with them to the organisation. It then suggests that if job resources are scarce and job requirements are high, factors such as burnout increase, but if resources are sufficient and job requirements are high, then aspects such as work engagement will increase (Janse, 2019).

Bakker (2017) stated that the Job Demands-Resources (JD-R) theory views work engagement as a function of the job demands and resources provided by the organisation. It sees engagement as an intermediate factor in a causal process in which job demands and resources (or a combination of both) are the predictors, and organisational performance is the outcome. Bakker (2017) also stated that JD-R theory acknowledges that employees may be proactive and take the initiative to personally change their own work environment. This behaviour is

referred to as job crafting. Engaged employees can be seen as having access to numerous job resources. Engaged employees are also motivated to stay engaged and proactively employ job crafting behaviours to mobilise their own job resources. On the opposite side of the spectrum, employees who are often confronted with high and negative job demands (hindrance demands) develop high levels of exhaustion and may end up in a vicious loss cycle (Bakker, 2017).

As proposed in the JD-R model outlined by Demerouti et al. (2001), job demands may negatively impact employee health if exposure to daily workload transforms into chronic overload over a long period. In contrast, job resources can also result in a motivational process. Since job resources provide some form of meaning and satisfy people's basic needs, job resources can be motivating and contribute positively to work engagement (Schaufeli & Bakker, 2004). Bakker and Demerouti (2018) shared similar sentiments suggesting that the JD-R theory proposes that job resources influence the impact of job demands on the negative strain. Even though job demands and job resources have clear and independent effects, there are specific relationships between these variables in which they operate together. Individuals in the workplace actively influence their own job characteristics through adaptive or self-regulation strategies. The JD-R theory proposes that employees who experience work engagement (for example, high levels of energy, dedication and absorption) proactively try to optimise their job demands and resources through job crafting (Bakker & de Vries, 2020). In contrast, employees who experience job strain will start to undermine their own functioning at work (Bakker & Wang, 2019). The JD-R theory further states, as outlined by Bakker and Demerouti (2018), that employees who are motivated by their work are likely to engage in job crafting. This, in turn, could lead to higher levels of job and personal resources (such as PsyCap) which, in turn, could increase employee motivation and engagement even more. Janse (2019) further emphasised what Bakker and Demerouti (2018) stated that the balance between job resources (as outlined by the JD-R model) and job requirements determine the degree to which employees feel energised by the work. If the balance is negative, it can lead to aspects such as physical sickness and burnout. If the balance is positive, it can yield engagement.

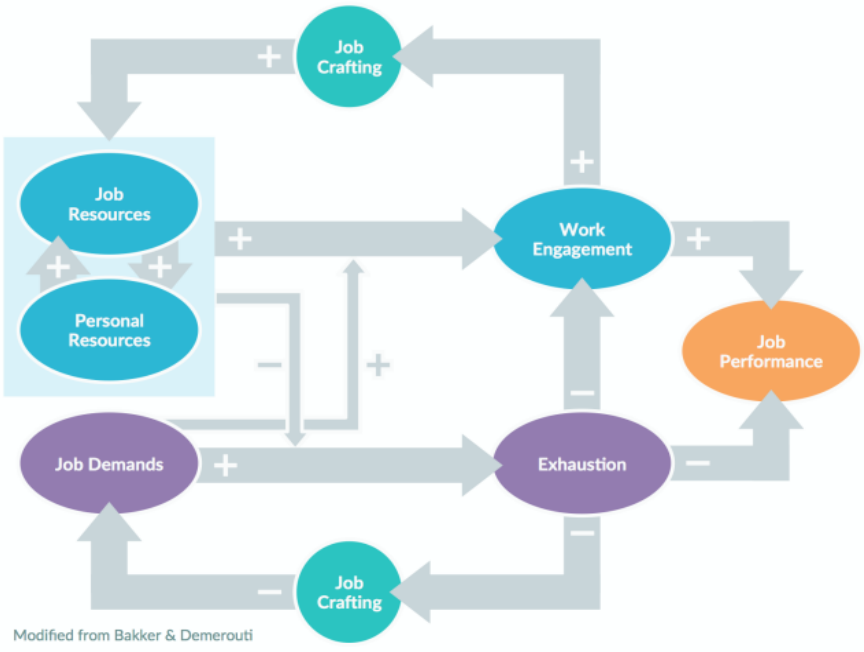
Bakker and Demerouti (2018) placed further emphasis on the research conducted by Tims, Bakker and Derks (2013) and Vogt et al. (2016), which provided support that corresponds with what the JD-R theory suggests in terms of job crafting. Specifically, that it can cause an

increase in job resources (including personal resources such as PsyCap) and indirectly influence work engagement. Kotze (2017) also found evidence that employees' satisfaction with job resources positively influenced work engagement in terms of vigour and dedication. In addition, personal resources, such as PsyCap, positively influenced individuals' satisfaction with job resources and partially mediated the influence on vigour and dedication (Kotze, 2017).

The above researchers all seem to reach the same conclusion in terms of what the JD-R theory suggests: a relationship exists between the various variables with specific pathways of impact on each other. For example, researchers such as Bakker and Demerouti (2018) suggested that job resources and personal resources, such as PsyCap, influenced an individual's work engagement levels, therefore, providing support for the main objective of this research study. In addition, Tims, Bakker and Derks (2012) provided evidence that job crafting indirectly influenced work engagement, which could increase an individual's PsyCap level. Bakker and Demerouti's 2018 study also supports this finding.

Figure 2.2

JD-R Model Layout



Source: Jantti, T. (2018). *The balancing act of job demands-resources.* https://www.emooter.com/thoughts/balancing-job-demands-resources/

Figure 2.2 by Jantti (2018) showcased how the variables in the JD-R model connect or influence one another and how the variables impact an employee's well-being. The framework also provided support for this study, suggesting that job crafting has an indirect effect on the relationship between these variables.

2.3 PSYCAP, JOB CRAFTING AND WORK ENGAGEMENT IN THE ACADEMIC ENVIRONMENT

Le Grange (2020) highlighted that the Covid-19 pandemic has resulted in a multi-faceted crisis that resulted in numerous implications for higher education. One of the biggest impacts that it has had is the push for academia to move to an online form of learning. Whilst some academics and institutions have adapted, others face numerous struggles. In countries like South Africa, Covid-19 has exposed the digital divide that exists within the country. This sudden push has resulted in lecturers having to adjust the way they approach their work and how they conduct teaching. It has, however, also presented lecturers with new ways to produce quality learning and, in turn, provided a strong challenge to the more traditional way of teaching that academics are used to. Irfan and Qauder's (2021) study, which consisted of knowledge workers from both health care and university, shed light on how resourceful and challenging jobs could promote job crafting. According to the researchers, resourceful and challenging jobs create an active work environment that provides job discretion and opportunities for learning and development which serves to motivate and, therefore, stimulate job crafting behaviours. The results of their study also confirmed a positive and significant relationship between resourceful and challenging jobs and job crafting. They suggest that job crafting is a continuous process; by crafting jobs, employees can continuously build their desired job and their personal resources. According to Irfan and Qauder (2021), this is in line with what the JD-R theory suggests: crafting jobs activates a cycle of resources, increased motivation, and work engagement.

Similarly, Shang (2022), who conducted a study on political academic teachers, found that job crafting was positively related to work engagement. They argued that job crafting is essential to those working in the education sphere, and through job crafting, aspects such as work engagement can be maintained. Khan and Imran (2018), Hussien (2018), Khan (2022) and Dhanpat (2022) found similar results to both Irfan and Qauder (2021) and Shang (2022). Their studies highlighted that job crafting could be positively linked to certain aspects such as

work engagement, job satisfaction and work performance. In terms of psychological capital, Wardani and Anwar (2019) conducted a study on multi-institutional organisations and found that psychological capital had a positive relationship with work engagement. Likewise, studies conducted by Mutonyi (2021) and Ojo et al. (2021) provided further support highlighting the importance of personal resources. The former study found that PsyCap positively affected employees in higher education facilities by showcasing certain positive behaviours such as innovativeness. The latter suggested that personal sources aided in building an individual's resilience (a component of PsyCap) that would assist in enhancing work engagement during the Covid-19 pandemic. They went on to highlight the important role that self-efficacy (another component of PsyCap) played in employee resilience. They argued that self-efficacy could help retain employees' heightened sense of productivity through engagement with their work. However, their study could only prove that a relationship between self-efficacy and work engagement existed and that resilience may not have impacted this relationship.

2.4 CONCEPTUALISING PSYCHOLOGICAL CAPITAL

Luthans (2002) defined psychological capital (PsyCap) as an individual's positive psychological developmental state which is generally characterised by making positive attributions, having confidence in one's abilities, and having resilience which allows individuals to attain success as well as being able to redirect career paths. Psychological capital can therefore be seen as being made up of certain resources, such as self-efficacy and optimism, that meet the criteria for positive organisational behaviour. In terms of the JD-R model, psychological capital is seen as a personal resource that impacts aspects such as employee work engagement. In the JR-D Model, PsyCap is listed as a personal resource available to individuals. Luthans and Youssef-Morgan (2017) further elaborated that PsyCap integrates four positive psychological resources. It is considered a second-order construct based on four shared first-order constructs: hope, self-efficacy, resilience and optimism. Grobler and Joubert (2018) shared similar views to Luthans and Youssef-Morgan (2017) and elaborated that PsyCap can be seen as granting or supporting unity between organisations and employees and also granting the organisation a competitive advantage.

The four dimensions that make up PsyCap will be discussed below:

2.4.1 Hope

Hope can be defined as the individual's willpower to have positive goals and expectations. It also includes an individual finding other or alternative paths to cope with expectations should they not happen the way the individual desires (Grobler & Joubert, 2018). Vîrgă et al. (2020) further stated that besides being a positive state, it also refers to an individual's motivation to achieve realistic objectives and plans despite problems that may occur.

Çavuş and Gökçen (2015) further elaborated that hope involved a sense of agency in individuals as well as expectations that served to aid them in achieving their goals. It can be seen as a form of internalised determination and willpower. Hope could also be seen as a form of motivation to cope with stressful events. Researchers such as Wandeler et al. (2002) identified hope as a motivational state consisting of two dimensions: agency and pathways. Çavuş and Gökçen (2015) further defined agency as referring to an individual's determination to achieve their goals. Pathways, in accordance with Çavuş and Gökçen (2015), is an individual's plan to achieve those goals. Ohlin (2020) shared similar views to Çavuş and Gökçen (2015) and Vîrgă et al. (2015) where hope could be seen as a cognitive process that motivates individuals to find willpower (goal-directed determination) and waypower (planning of ways to meet goals) which, in turn, leads to positive emotions (the expectation of meeting desired goals).

2.4.2 Optimism

According to Laschinger and Nosko (2015), optimism is referred to an individual's anticipation of a desirable outcome. Grobler and Joubert (2018) highlighted that optimism could be seen as being made up of two-dimensional constructs, namely (i) the degree of permanence, which is when positive events are seen as permanent whilst negative events are seen as temporary, and (ii) pervasiveness which is when positivity causes are seen as being able to be applied to all events whilst negative causes are only applicable to some.

Çavuş and Gökçen (2015) defined optimism as a psychological concept that involves the intention and expectation to hope for the best possible and positive outcome which has a positive influence on an individual's mental and physical health. It aids individuals by giving them a chance to improve their lives by reducing aspects such as stress. Individuals who identify as having high levels of optimism tend to avoid depression and feelings of hopelessness. Ohlin (2020) further explained that optimism could be seen as making a

positive attribution about succeeding in the present and the future. It is linked to an individual's external locus of control - individuals with a low external locus of control tend to internalise positive events and take all the credit for it. Optimists differ from individuals with low levels of external locus of control as they believe that good things will happen to them no matter what. Individuals with a low external locus of control believe one has to work for it.

2.4.3 Self-Efficacy

Laschinger and Nosko (2015) defined self-efficacy as an individual's capacity to execute orders or tasks by using the correct courses of action and cognitive resources. Grobler and Joubert (2018) also similarly defined self-efficacy; in the PsyCap context, self-efficacy refers to an individual's confidence level in their ability to establish a course of action and to find a level of motivation needed to implement and complete certain tasks. This means that if an individual's self-efficacy is very high, they are generally more willing and capable of facing challenges and extending effort and motivation to reach and complete goals successfully. In addition, Luthans et al. (2007) are of the opinion that individuals with high self-efficacy generally tend to possess an appreciation for establishing high goals, embracing and flourishing in challenging times, self-motivating themselves, putting in effort to reach goals and overcoming obstacles.

Çavuş and Gökçen (2015) purported that self-efficacy represents an individual's belief in people to exhibit their performance and make sense beyond their actual abilities which would lead to the completion of tasks. Individuals who possess high confidence can improve their own motivation. They do this by choosing challenging tasks and motivating themselves against obstacles that appear. Ohlin (2020) elaborated on this by stating that based on what research has informed us, self-efficacy is the belief that one can produce the desired effect. The higher an individual's self-efficacy is, the harder they would work to achieve their goals. It is mostly made of two key tools, namely, examination of what needs to be done and examination of one's own capability to do what needs to be done.

2.4.4 Resilience

Luthans et al. (2007) defined resilience as the ability to bounce back to achieve success when facing or having faced some form of problem or difficulty. In the workplace, resilience can be seen as protective factors used by an individual to reduce risks within themselves and the environment. Resilience is also defined as an individual's ability to be flexible and recover

from adversity. It is also seen as individuals' tendency to recover from certain adverse or depressing processes, thus allowing them to look at overwhelming situations in a more optimistic light. In terms of the psychological sphere, resilience is described as an individual's ability to bounce back and focus on achieving goals and success (Çavuş & Gökçe, 2015; Laschinger & Nosko, 2015; Ohlin, 2020). These may include aspects such as temperament, spirituality, cognitive abilities, sense of humour, positive outlook on life, initiative, and emotional stability (Grobler & Joubert, 2018). Dawkins (2014) further expressed that resilience risk factors tend to predict poor judgement and negative outcomes which could include aspects such as burnout, stress, lack of training, unemployment or lack of knowledge.

2.5 PSYCHOLOGICAL CAPITAL'S ROLE IN THE WORKING ENVIRONMENT

Vîrgă et al. (2020) stated that a high level of psychological capital has numerous positive effects and could affect an employee's ability to cope within the workplace. They argue that to balance the negative consequences of stressful work, one needs to enhance their understanding of an individual's personal resources. Their study, which was conducted on social workers to see whether PsyCap protects these employees from burnout and traumatic stress, indicated that PsyCap enhances the working conditions in which individuals operate. Their study further highlighted that a personal resource like PsyCap, equipped employees with the ability to cope with demanding jobs. Paul (2020) proposed in their study that PsyCap is important to understand because it is closely related to several job attitudes, stress indicators, and behaviours. It also strongly relates to job satisfaction, organisational commitment, psychological well-being and organisational citizenship behaviour. It is, however, only moderately related to job performance. Paul (2020) further emphasised that more research is needed regarding the relationship between PsyCap and job performance. Further evidence of psychological capital's role in the workplace is provided by researchers such as Gupta and Shaheen (2017). Highly engaged employees tend to differ from other employees in that they are richer in personal resources such as high self-esteem, optimism, resilience and self-efficacy. These personal resources may, in turn, help employees regulate their work and may also play a role in influencing their work environment more efficiently (Gupta & Shaheen, 2017; Hussein, 2020).

In terms of academics, several research studies suggested that lecturers face significant challenges in balancing the demands of their jobs and the resources available to them. Both personal and structural resources are limited, therefore, lecturers are facing significant challenges in conducting their jobs (Ogbuanya & Chukwuedo, 2017; Naidoo-Chetty & du Plessis, 2021). For example, Ogbuanya and Chukwuedo (2017) found that many universities face numerous on-the-job irregularities such as oversized classes, lack of technological devices, multiple job tasks and challenges in maintaining work-life balance. These challenges impact the lecturers' and academic staff's ability to conduct work and may lead them to try to change their job tasks to better accommodate them (job crafting). Further to this, in Naidoo-Chetty and du Plessis' (2021) study, they found that the Covid-19 pandemic placed further pressure on academics, increasing certain social demands (public pressure) and job-based demands (work overload and time demand pressures). These pressures affected the academics' personal resources and engagement level with their work.

Gupta and Shaheen (2017), prior to Naidoo-Chetty and du Plessis' (2021) study, highlighted that employees with high self-efficacy (a dimension that falls under the personal resource known as PsyCap) who tended to believe in their work would put in more effort to overcome hurdles. Confidence, in turn, tends to lead employees to apply themselves more freely to their work which, in turn, leads to personal growth and makes the individual happy. Employees with high self-efficacy also tend to see difficult tasks as challenges rather than burdens; therefore, the individual would embrace the opportunity to overcome them. Other PsyCap resources, such as hope and optimism, see employees having positive perceptions of workplace situations and attach themselves both physically and cognitively to their work. Dedicated employees maintain vigour and absorption in their work roles and employees who use resilience tend to develop coping abilities and the ability to bounce back. The ability to bounce back enables the employees to apply themselves to the fullest in their respective job tasks and work (Gupta & Shaheen, 2017). Likewise, studies such as those conducted by Hasyim and Mangundjaya (2019) found that in the working environment, PsyCap had positive relations with other workplace attitudes such as work engagement and positively influenced aspects such as the organisational climate. They found that PsyCap had a positive relationship with both variables.

Some research studies, such as those conducted by Ogbuanya and Chukwuedo (2017), Hussein (2020) and Gayathri (2022), found that personal resources influenced a worker's

level of engagement. Hussein (2020) highlighted that certain personal resources, such as self-efficacy and optimism, have a strong positive relationship with work engagement. This means that should those resources be high, the individual would feel more engaged with their work. Hussein (2020) also found that other personal resources, such as resilience and hope, did not have a strong influence on individuals' work engagement levels. Gayathri (2022) found similar results in their study on academics that high levels of PsyCap had a positive impact on academic work engagement levels and would motivate them to perform better at work.

2.6 CONCEPTUALISING JOB CRAFTING

Wrzesniewski and Dutton (2001) and Zito et al., (2019) purported that job crafting was introduced to describe the process in which employees adapt their jobs to meet their specific needs and that it is a concept that focuses on employee job design. Berg et al. (2008) shared similar views to Wrzesniewskie and Dutton (2001) in that job crafting focuses on employee job design where employees modify aspects of their jobs to improve the fit between the characteristics of the job and their own needs.

Bakker and Demerouti (2007) highlighted that because job crafting involves initiating certain changes, it is based on the type of job characteristics highlighted within the JD-R model. Tims and Bakker (2010) further elaborated on job crafting in terms of what it means for employees' job-based behaviour. They established job crafting as a term that refers to an individual's self-motivated behaviour that alters their work tasks and the boundaries of the work relationships to align their interests, motivations and passion with their job. According to Tims and Bakker (2012), job crafting involves reconstructing or re-organising work content, work relationships and design, as well as how one goes about doing the work to with the aim of getting a better sense of the work and one's workplace identity. Research surrounding job crafting has shown a shift to a more in-depth theory-based testing approach. In addition, research has shifted to position job crafting dimensions such as increasing job resources and increasing challenging job demands as a part of approach crafting, whilst decreasing job demands has been shifted to avoidance crafting (Tims et al., 2021).

Based on the JD-R model, four dimensions of job crafting were distinguished: increasing structural job resources, increasing social resources, increasing challenging job demands and

decreasing hindering job demands (Tims & Bakker, 2012), each of which will be discussed in the following section.

2.6.1 Increasing Social Job Resources

Increasing social job resources refers to instances where employees seek guidance, opinions and feedback from others such as superiors' subordinates and peers. They do this to build up a social support network for themselves to help improve their level of performance (Siddaq, 2015). Zito et al. (2019) further defined this dimension as an employee's ability to search for support from supervisors or colleagues or seek an opportunity for coaching, create opportunities for professional development and autonomy. Both Siddaq (2015) and Zito et al. (2019) argued that this dimension, in particular, falls within the job resource sector and deals with aiding employees in achieving their goals. For academic staff members, this could include aspects such as seeking advice or mentorship from a more senior lecturer who has experience in a specific module, communicating and engaging with support staff such as tutors and teaching assistants to help build a strong support network, and making use of support systems such as counselling services if pressure builds.

2.6.2 Increasing Challenging Job Demands

Challenging demands refer to job demands that require extra effort. However, despite the extra effort needed, employees tend to react positively to them. Employees see these demands as leading to personal growth (Tims & Dirks, 2013). Siddaq (2015) referred to this dimension as employees trying to avoid boredom in their jobs and seeking to broaden their scope. This included taking on more responsibilities and taking an interest in new work-related developments. Zito et al. (2019) similarly defined this dimension; challenges that employees had to overcome to learn and achieve their goals. For academic staff members, this may include actions such as engaging in novel, interdisciplinary research, exploring teaching at post-graduate levels, improving their qualifications, teaching a new module and exploring new teaching modes (online learning).

2.6.3 Decreasing Hindering Job Demands

Hindering job demands refer to stressful demands that hinder job growth. Employees tend to withstand these demands by occasionally investing more resources (LePine et al., 2005). Siddaq (2015) found that this dimension of job crafting refers to when employees attempt to avoid doing tasks that they feel are physically or psychologically draining. These include

aspects such as avoiding working long hours, ignoring individuals who affect them emotionally and avoiding making complicated decisions. Similarly, Zito et al. (2019) also defined decreasing hindering job demands as individuals trying to decrease tasks or demands that impede their personal growth. Both increasing challenging job demands and decreasing challenging hindering job demands, according to Tims et al. (2012), deal with specific job demands that require physical and psychological effort from employees. For academic staff members, this could include aspects such as delegating repetitive or tiresome tasks to support staff such as teaching assistants, changing the module structure to be more efficient and using more updated modes to mark and assess students.

2.6.4 Increasing Structural Resources

This occurs when employees strive to enhance structural resources such as seeking more autonomy at work, trying to increase variety in their tasks or resources and seeking more responsibility in their jobs (Siddaq, 2015). Zito et al. (2019) agreed with Siddaq (2015) that this dimension referred to individuals seeking professional development and autonomy opportunities. Siddaq (2015) further elaborated that employees tend to focus on increasing structural resources at the individual and organisational levels. By increasing the structural resources, employees seek to find a way to improve their performance and grow as working individuals. Tims et al. (2012) highlighted that this dimension, similar to the dimension of increasing social resources, dealt with the resources that individuals used to reach their goals. For academic staff members, this could include aspects such as changing how the module is delivered to the student (variety), adjusting or adding additional components to modules that incorporate what is currently going on in the world and changing tests and assignments from how it was done in the previous year.

2.7 CONCEPTUALISING WORK ENGAGEMENT

Work engagement could be defined as being a positive, fulfilling, work-related state of mind and an effective motivational state. This state could be seen as an individual's level of fulfilment and could be characterised through three main dimensions: vigour, dedication and absorption. The construct of work engagement could therefore be seen as a popular domain in positive psychology and deals with enhancing employees' experience at work. This is a desirable state in which the employee feels a sense of purpose, involvement, passion and enthusiasm (Bakker & Demerouti, 2008; Coetzee & De Villiers, 2010; Salanova at al., 2002; Shekari, 2015).

Work engagement can be seen either as a multi-dimensional or a uni-dimensional construct. According to several researchers (can you reference some of them), it mostly depends on whether or not the researcher wishes to assess the work engagement of a particular sample as a whole or whether they wish to assess specific aspects related to work engagement (Kulikowski, 2019). Studies assessing the Utrecht Work Engagement Scale (UWES), which is largely used to assess employees' work engagement levels, found that the various dimensions had strong positive relations with each other and the construct showed high levels of internal consistency (Kulikowski, 2019; Schauler et al., 2006). Interest in studying and accessing work engagement has increased in recent years, particularly in the fields of psychology, occupational medicine and management due to the relationship between work engagement and employee performance (Kulikowski, 2019; Reijseget et al., 2017).Below the three dimensions of work engagement will be discussed:

2.7.1 Vigour

Schaufeli et al. (2002) referred to vigour as the worker's state of mind characterised by certain energy levels and willingness to put more effort into their work. Bakker and Demirouti (2008) defined vigour as individuals showcasing a great level of energy. Individuals with this characteristic implant more effort and hence can face any difficult situation more easily. Coetzee and De Villers (2010) agreed with Schaufeli's definition and further elaborated that vigour can be referred to as the physical component of work engagement, which includes high levels of energy and mental resilience in the work context, willingness to invest effort into work and also being persistent when facing issues and problems (Coetzee & De Villers, 2010). Rayton and Yalabik (2014) defined vigour as a state of energy, mental resilience, determination and invested commitment to one's work. It implies that individuals have high levels of energy and mental resilience at work.

2.7.2 Dedication

Schaufeli et al. (2002) stated that dedication refers to the worker's enthusiasm for their work which is triggered by the feeling that one's work has meaning. Bakker and Demirouti (2008) defined dedication as an individual's strong involvement in their tasks. Individuals who demonstrate this characteristic tend to have a sense of pride in their work and tend to be inspirational. Coetzee and De Villers (2010) also highlighted that dedication can be referred to as the emotional aspect of work engagement and covers characteristics such as a sense of

significance, efficacy, inspiration, pride, enthusiasm and challenge in the work context. According to Rayton and Yalabik (2014), it refers to being inspired by one's job and being highly involved within that specific job.

2.7.3 Absorption

Various researchers (Bakker & Demirouti, 2008; Rayton & Yalabik, 2014; Schaufeli et al., 2002) defined absorption as an individual's engrossment with their work, enjoying it to the point that they do not notice time going by. Building on Schaufeli et al.'s (2002) definition, Coetzee and De Villers (2010) stated that absorption could be referred to as the cognitive component of work engagement which refers to aspects such as individuals being fully focused and experiencing high levels of concentration whilst doing their work tasks. Rayton and Yalabik (2014) put forth that this dimension referred to one being detached from one's surroundings and having a high degree of concentration on one's job.

2.8 RELATIONSHIP BETWEEN PSYCHOLOGICAL CAPITAL AND WORK ENGAGEMENT

Gupta and Shaheen's (2017) findings aligned with Xanthopoulou, Bakker, Demerouti, and Schaufeli's (2007) in that they found that employees who were engaged with their work generally tended to be highly efficient, possess higher levels of optimism and have beliefs that they could satisfy their needs by participating in roles within the organisation. This, in turn, symbolises that they possess high levels of organisational self-esteem (Adil & Kamil, 2016). Ngwenya and Pelser (2020) conducted a study on employees who work in a manufacturing space in Zimbabwe. They found that psychological capital positively correlates with work engagement which then, in turn, influences performance outcomes.

Bakker and Demerouti (2008) argued that the JD-R theory proposes that aspects such as job demands and job resources not only directly affect work engagement, but if those resources are engaged with (increased or decreased), they could possibly shape the work engagement of employees. Similarly, Borst et al. (2017) further suggested in their study that work engagement mediates the relationship between job demand resources (JD-R) and job outcomes. They concluded that organisations could potentially increase work engagement and inherently employee outcomes by increasing work-related resources (autonomy, cooperation with colleagues). Costantini et al. (2017) showed that a positive relationship existed between psychological capital and work engagement. Supporting the notion that

psychological capital has a positive relationship with work engagement, Sweetman and Luthans (2010) argued that the four dimensions that make up psychological capital should possess a positive relationship with work engagement because they tend to reflect self-beliefs about certain aspects, such as workplace environment control. An example of this would be employees with high levels of self-efficacy and optimism, who tend to expect things to go well, accept setbacks and failures as normal and do not feel it reflects their self-worth (Adil & Kamil, 2016). Sutrisno and Parahyanti (2018) found that PsyCap does influence work engagement. Their findings revealed that employees with high self-efficacy will increasingly believe in their ability to work and finish their tasks. Hope and optimism will, in turn, influence the employee's expectations increasing their belief in what they are doing and what they can achieve. This will also build their resilience as they will not easily fail when faced with challenges. These aspects will allow employees to build up the resources needed to remain engaged with their work.

Kotze (2017) conducted a study in South Africa which suggested that PsyCap positively influences work engagement, particularly vigour and dedication. The results of their study showed that PsyCap had a statistically significant positive influence on both dimensions, with a slightly stronger positive influence on vigour than on dedication. Diedericks et al., (2019) conducted a study on academics in South Africa, revealing a meaningful positive relationship between PsyCap and work engagement. They argued that academics may experience emotional components of resistance, such as frustration, stress and nervousness because of radical changes and challenges. They suggested that fairly high levels of PsyCap and work engagement may indicate high levels of emotional well-being, allowing them to flourish. Flourishing employees function optimally in their work environment and showcase a variety of aspects such as hope, efficacy, resilience and optimism.

Thus, based on the empirical relationship between PsyCap and work engagement found in the literature, the following hypothesis is proposed:

- H_1: There is a statistically significant direct relationship between PsyCap and work engagement.

2.9 JOB CRAFTING AND ITS ROLE IN THE RELATIONSHIP BETWEEN PSYCHOLOGICAL CAPITAL AND WORK ENGAGEMENT

According to researchers such as de Beer et al. (2016), job crafting impacts psychological capital and work engagement. Below, various findings related to job crafting's impact on psychological capital and work engagement will be discussed.

Sakuraya et al. (2016) conducted a study where they examined the effectiveness of job crafting interventions on work engagement (as a primary outcome) as well as job crafting effect on psychological distress (as a secondary outcome). The results of their study indicated that job crafting interventions have a positive direct effect on work engagement. This may be a result of an increase in job resources which helped the employee better adjust and deal with workplace stress. Peral and Geldenhuys (2016) conducted a study on South African teachers to investigate the relationship between job crafting and subjective well-being. According to their study, subjective well-being is comprised of psychological meaningfulness and work engagement. Their study also indicated a positive relationship between job crafting dimensions (increasing structural resources and challenging job demands) and work engagement.

On the contrary, Shin et al., (2018) suggested that job crafting may not have a direct link with work engagement, or at least, may not be as directly linked with work engagement as researchers seemed to think. Their findings revealed that the indirect relationship between job crafting and work engagement could be increased only if PsyCap is included. Alternatively, Robledo et al. (2019) conducted a study where they investigated job crafting as a mediator between work engagement and well-being outcomes. The finding of their study not only indicated that job crafting successfully mediates between work engagement and employee outcomes but that some of the well-being outcomes were aspects such as job performance and flourishing. The job crafting dimension, in particular, increasing structural job resources, mediates the positive effect of work engagement on flourishing. Wingeraden et al. (2017) conducted a study that showed that interventions that combined personal resources and job crafting tended to lead to improvement in role performance which, in turn, could lead to a successful increase in job resources and goal achievement. Their findings, however, revealed that combining personal resources and job crafting did not increase work engagement.

However, Hussein and Amiruddin's (2020) study suggested that only one dimension of job crafting, namely, social job resources, was found to have a significant positive relationship with work engagement. In terms of PsyCap, they found that self-efficacy and optimism had a significant positive relationship with work engagement. However, they suggested that management needed to ensure that the job demands were appropriate to increase employees' self-efficacy.

Peral and Geldenhuys' (2016) study on the effect of job crafting on work engagement with South African teachers suggested that a positive relationship existed between job crafting and work engagement. Bakker (2017) suggested that every job had some latitude that allowed it to be shaped in some way, potentially allowing for the customisation of job tasks and work settings. Bakker (2017) further suggested that by using the JD-R theory, one could argue that job crafting could take the form of proactively increasing job resources, challenging demands or reducing hindering job demands. According to Bakker (2017), these job crafting behaviours may take the form of improving job demands and resources and are also considered to be positively related to aspects such as work engagement. Likewise, Bakker (2017) suggested that employees can be taught how to craft their jobs which would result in even higher levels of job and personal resources and lead to higher levels of work engagement. According to Bakker (2017), this means that job crafting is an effective bottom-up strategy that can be used to improve work engagement because it increases the fit between the individual and the organisation. Villajos et al. (2018) found in their study that the dimensions of job crafting tend to predict work engagement levels and that a positive relationship exists between the two constructs.

Costantini and Sartori's (2018) research findings suggested that proactive individuals who initiated change in their work environment and work-related tasks were more likely to experience positive work-related emotions which, in turn, would lead them to experience high levels of work engagement. This means that individuals who engage in job crafting are more likely to experience a positive, fulfilling, work-related mental state that will lead them to feel more engaged. Thus Costantini and Sartori's (2018) study suggested that job crafting had either a moderating or mediating role in the relationship between psychological capital and work engagement. Likewise, Jutengren et al. (2020) noted that an individual's self-efficacy tended to correlate positively with job crafting behaviour. In contrast to Costanti and Sartori's (2018) study, Aldrin and Merdiaty (2019) found that job crafting had no significant

relationship with work engagement. Although they identified that certain elements of job crafting may support prior research, they might have identified the relationship between job crafting and work engagement.

2.9.1 The Indirect Effect of Reducing Hindering Job Demands on the Relationship Between PsyCap and Work Engagement

Siddiqi (2015) conducted a study on service employees and analysed the relationship between work engagement and job crafting. They found that all dimensions of job crafting (increasing structural resources, decreasing hindering job demands, increasing social resources and increasing challenging job demands) lead to a slight increase in employees' work engagement. They argued that job crafting may offset de-motivating factors (by decreasing hindering job demands) and enable motivation to take place (by increasing job resources). Further examining the relationship between job crafting and work engagement, De Beer et al., (2016) conducted a cross-sectional study that was used to collect primary data from organisations in the mining and manufacturing industries in South Africa. Their study aimed to investigate the relationship between job crafting and work engagement and job satisfaction. In De Beer et al.'s (2016) study, they found that decreasing job demands (an element of job crafting) did not have a significant relationship with work engagement in the mining and manufacturing industries.

Similarly, as stated by De Beer et al. (2016), the JD-R model does not present a direct relationship between job demands (for example, workload) and work engagement. Therefore, according to Beer et al. (2016), this finding is in line with other studies. For example, Shin et al. (2019) found that in terms of PsyCap, job crafting dimensions, including decreasing hindering job demands, improved employee PsyCap levels. However, the researchers did note that decreasing hindering job demands could potentially impact work engagement negatively.

- H_2: The job crafting dimension, decreasing hindering job demands, has a statistically significant indirect effect on the relationship between PsyCap and work engagement.

2.9.2 The Indirect Effect of Increasing Challenging Job Demands on the Relationship Between PsyCap and Work Engagement

De Beer et al. (2016) found that increasing challenging job demands has a significant positive relationship with work engagement. They stated that challenging job demands increase employee motivation and work engagement levels. Harju et al. (2016) also supported this finding and found that out of all the job crafting dimensions, increasing challenging job demands seem to yield the most benefits for employees regarding motivation and well-being. Baik et al. (2018) found that increasing challenging job demands may influence change-orientated behaviour but only through the mediating effect of work engagement, suggesting that some form of relationship exists between this dimension of job crafting and work engagement.

Van Wingerden et al. (2015) examined how job crafting interventions influenced aspects such as work engagement and Psycap levels of employees. Their findings suggest that organisations can also improve employees' PsyCap levels by providing interventions that provide opportunities for increasing challenging demands at work which, in turn, could lead to an increase in work engagement. Robledo et al. (2019) further stated that increasing challenging job demands positively correlate with work engagement and fully mediates the relationship between work engagement and job performance. They further stated that increasing structural resources (allowing for self-learning and development activities) and increasing challenging job demands (allowing those development activities to be challenging) maximises the impact on work engagement which, in turn, maximises job performance. Likewise, in terms of PsyCap, Wingerden and Poell (2019) tested their hypothesised theory that a relationship existed between job crafting and employee resilience through bootstrapping analysis. The outcomes of their study revealed that both work engagement and job crafting fully mediated the relationship between meaningful work and teachers' resilience.

- H_3: The job crafting dimension, increasing challenging job demands, has a statistically significant indirect effect on the relationship between PsyCap and work engagement.

2.9.3 The Indirect Effect of Increasing Job Resources (Structural and Social) on the Relationship Between PsyCap and Work Engagement

Siddaq (2015) also found that increasing social job resources seemed to have the biggest impact on employee work engagement. He found that most job crafting dimensions seem to influence work engagement in some way. In accordance with his findings, however, he found that social job resources and allowing individuals to increase social support tended to have the biggest impact on employee work engagement. The findings of Demerouti, Bakker and Gever's (2015) study suggest that the more individuals seek resources at work (structural and social), the more engaged they are in their work and this leads them to flourish in life. De Beer et al. (2016) shared similar views to Demerouti et al. (2015) in that both increasing structural and social job resources has a significant positive impact on work engagement. They further stated that increasing social resources, such as coaching and providing support, is positively aligned with work engagement and when these resources are high, so are work engagement levels.

Studies have also suggested a relationship exists between PsyCap and increasing social resources. By building on social support and interaction, PsyCap levels could be increased and the same applies to the inverse. If social support and social resources are present, PsyCap levels of individuals will increase. If social support is provided at work, employees will craft their jobs to build on the social resources made available to them. In a work context, social resources fall within the elements of resources that employees could draw upon in their work (Kerksieck et al., 2018; Luo et al., 2021). In terms of structural resources, several researchers have identified a positive relationship between PsyCap and certain structural resources within the organisation, such as opportunities related to career development, adaptability and career searching opportunities (Georgiou et al., 2019; Di Maggio et al., 2021; Zyberaj et al., 2022). When conducting their study, Georgiou et al. (2019) found that employees who underwent training on developing their psychological capital could develop a heightened sense of perseverance and therefore be optimistic and search for jobs and tend to understand and apply themselves more in relation to job opportunities such as job applications and updating their resumes.

- H_4: The job crafting dimension, increasing structural job resources, has a statistically significant indirect effect on the relationship between PsyCap and work engagement.

- H_5: The job crafting dimension, increasing social job resources, has a statistically significant indirect effect on the relationship between PsyCap and work engagement.

2.10 SUMMARY OF HYPOTHESES

Based on the literature, the hypotheses are summarised as follows:

- H_1: There is a statistically significant direct relationship between PsyCap and work engagement.
- H_2: The job crafting dimension, decreasing hindering job demands, has a statistically significant indirect effect on the relationship between PsyCap and work engagement.
- H_3: The job crafting dimension, increasing challenging job demands, has a statistically significant indirect effect on the relationship between PsyCap and work engagement.
- H_4: The job crafting dimension, increasing structural job resources, has a statistically significant indirect effect on the relationship between PsyCap and work engagement.
- H_5: The job crafting dimension, increasing social job resources, has a statistically significant indirect effect on the relationship between PsyCap and work engagement.

2.11 CONCLUDING REMARKS

Various research studies have well-documented the impact of job crafting on work engagement. Whilst some researchers, as discussed in this chapter, provide slightly different views in terms of the relationship between the job crafting dimensions and work engagement, there is also empirical proof that there is a connection between these two variables. Most research indicated that PsyCap strongly influenced work engagement and that job crafting could also influence an individual's PsyCap levels. Therefore, evidence suggests that these three constructs impact one another. This chapter highlighted some of the more recent studies conducted on the relationship between job crafting, psychological capital and work engagement and provided some context regarding how these variables relate to one another.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 INTRODUCTION

The following chapter highlights the specific methodology and research method used to structure the research study. First, the research design, data collection procedure, and population and sample are discussed. Thereafter, the measuring instruments used to collect the data (and their psychometric properties) and the statistical techniques to test the hypotheses are delineated. The chapter concludes with the ethical principles that were undertaken to guide this research.

3.2 RESEARCH DESIGN

The research design for this study was based on positivism which is the belief that scientific knowledge is a function of being verified through the accumulation of facts. Positivism emphasises large-scale surveys to get an overview of society as a whole and uncover certain social trends (Thompson, 2015). Researchers look for relationships or correlations between two or more methods, also known as the comparative method (Thompson, 2015); therefore, this kind of research is more focused on the specific trends rather than on the individuals themselves. According to Konge (2020), positivism relies on hypothetical deductive methods to verify hypotheses from which functional relationships can be derived. This research design is applicable to the current study because it focuses on determining specific relationships between two or more variables to get an overview of how these variables impact the larger population of academics in the workplace.

A quantitative methodology was used to achieve the objectives of this research, as the researcher wanted a more objective overview of how the variables being studied related to each other. However, some disadvantages to this approach are that it requires a large sample size to draw meaningful relationships and does not provide in-depth meaning as to why things are the way they are (Miller, 2020; Noyes et al., 2018). Quantitative research does, however, provide one of the most reliable ways of identifying if relationships exist between variables and provides a good foundation in which to identify specific trends that are

emerging between those variables (Miller, 2020; Noyes et al., 2018). Therefore, for that purpose, a quantitative approach was chosen.

The objectives set out by the research study were achieved by using an ex-post facto correlation design. An ex-post facto study is a category of research design where an investigation is launched into an area of interest without interference from the researcher (Akinlua, 2020). Sharma (2019) highlighted that an ex-post factor research design deals with analysing existing data that cannot be manipulated or controlled to see how it influences another variable. It also aids the researcher by being more flexible in terms of administration and less costly. Ex-post facto studies are also more economically feasible and less time-consuming (Akinlua, 2019; Sharma, 2019; Shahzad, 2019). This type of research design was used because the researcher aimed to see the levels of PsyCap, work engagement and job crafting of academics and how they influenced each other without any external interferences. The advantages of this kind of research are that it works well within the social and behavioural science sector as the researcher cannot manipulate the variables. The disadvantages of this kind of research, however, are that it does not allow for the manipulation of variables, nor can it be used to define a clear relationship between variables that are being studied (Akinlua, 2019; Sharma, 2019).

3.3 SAMPLE AND SAMPLE SELECTION METHOD

3.3.1 Population and Sample

A population can be defined as all the specific units that fall within a certain sector or area of research interest (Bhardwaj, 2019). The current study was conducted utilising a population of full-time permanent academic staff members employed at various universities throughout South Africa. According to the HEMIS database of 2018, there were 4781 full-time permanent academic staff working. Whilst this is not an exact representation of the population in 2022, it provides an estimation of the population of academics.

A sample can be defined as a process of selecting individuals (a subset of the population) from a large group for certain kinds of research purposes (Bhardwaj, 2019). According to Bullen (2017), the minimum sample size for any statistical research is 100. This is needed as the benchmark in order to gather meaningful information from the data that is analysed. Therefore, a researcher or statistician should try to get a sample between the minimum and

maximum population size, at least 10% of the maximum but not greater than 1000. Another rule that should be followed is based on the level of error the researcher would allow in their research. This will ensure that the sample the researcher uses will reflect the population it represents and therefore be generalisable (Bullen, 2017). This is the main reason why such a substantive-sized sample was needed for the current research study.

For the purpose of this study, convenience sampling, a nonprobability sampling technique, was used. The sampling method allows for easy accessibility to members of the target population that meet certain practical criteria, such as accessibility, geographical proximity, availability at a given time, or the willingness to participate are included for the purpose of the study *(*Farrokhi & Mahmoud-Hamidabad, 2012; Etikan et al., 2016*).*

Although the research instruments were sent to all permanent academic staff members employed at seven academic institutions, only 156 complete responses were received. Whilst the sample size is sufficient for statistical analysis (Bullen, n.d), the generalisability of the sample to the population is 357 for a population of about 5000 (Sekaran, 2003); therefore, the current sample of 156 is below that representative level and therefore cannot be generalisable.

3.3.2 Data Collection Procedure

Before the research could be undertaken, it was approved by both the Ethics Committee and the seven institutions where the research was conducted. The researcher contacted other universities via email and followed each university's process to acquire permission and ethical clearance for the research to be carried out. When permission was granted, a link to the survey was distributed via email by the various Registrar's offices to the participants.

The data collection process for the research study was as follows: a link was sent out to academics requesting them to complete the survey and the responses were recorded online through google forms. The email comprised information such as the information sheet, which provided a detailed explanation of the process, a consent form, a demographic questionnaire and the three research instruments (namely, the Utrecht Work Engagement Scale, Psychological Capital Questionnaire and the Job Crafting Scale).

Before completing the questionnaire, respondents were asked to complete a consent form after reading the information sheet provided. This was to ensure that they understood what

the research project was asking of them and to decide whether they would like to participate or not. If they were unwilling to participate in the study, the questionnaire would automatically end. Respondents were informed that the questionnaire would not take them longer than 15-30 minutes to complete, and they were assured that their information would not be shared with anyone else. This assurance was also emphasised in the information sheet. The respondents were asked to complete all the sections of the questionnaire to ensure that reliable and valid responses were collected. There was no missing data as the questionnaire was set up in such a way that the participant could not proceed unless they answered all the questions. The questionnaire responses were then downloaded from Google Forms to be analysed using SPSS (version26).

One-hundred-and-seventy-one participants completed the questionnaire but only 156 met the criteria. The rejected responses were academic staff that did not meet the full-time academic criterion. Those responses were removed before the data was processed and analysed on SPSS. Data was coded and allocated specific reference names to make analysing on SPSS easier. For example, the first question in the PsyCap Questionnaire was changed to "PsyCap_1". Gender and Title were also given specific numeric codes to make processing the data on SPSS easier.

3.3.3 Characteristics of the Sample

The table that follows provides details regarding the sample that served as the basis of the current research study. It details certain characteristics about the sample size that was coded and used for the analyses. While certain options were coded specifically, questions regarding age were open ended in that individuals could manually type in the age and could also type in N/A if they did not wish to specify their age.

Table 3.1

Item	Category	Frequency (n)	Percentage (%)
Gender	Male	63	40.4%
	Female	92	59.0%
	Prefer not to say	1	0.6%
Title	Professor	25	16.0%
	Senior Lecturer	40	25.6%
	Lecturer	56	35.9%
	Associate Professor	24	15.4%
	Managing Director	4	2.6%
	Other	7	4.5%
	Above 50	11	5.7%
Marital Status	Married	108	69.2%
	Single	37	23.7%
	Prefer not to say	11	7.1%
College/Faculty	Arts	22	14.1%
	Human Sciences	5	3.2%
	Science, Engineering & Technology	1	0.6%
	Economic & Management Sciences	29	18.6%
	Natural Science	28	17.9%
	Education	12	7.7%
	Law	6	3.8%
	Dentistry	11	7.1%
	Community & Health sciences	23	14.7%
	Other	19	12.2%

Based on the results of the demographic analysis, most of the respondents for the survey were female. In total, female participants accounted for 59.0% of completed and submitted questionnaires, whilst males only accounted for 40.4%. However, a small segment of the responses (0.6%) preferred not to provide their specified gender.

As seen in Table 3.1, most of the respondents were married, whilst only a few of the participants preferred not to specify their relationship status. 69.2% of the respondents were married at the time of taking the survey, whilst 23.7% were single.

As seen in Table 3.1, most of the responces came from lecturers, which made up 35.9% of the responces, while senior lecturers made up 25.6%.

As seen in table 3.1 that is based on the analysis results, most of the respondents came from the Economic and Management Sciences Faculty/School, with the second largest responses from the Natural Science Faculty (17.9%). The lowest responses were from the School of Science, Engineering and Technology (0.6%).

In terms of age, the respondents ranged between the age of 25 and 67. While in terms of tenure, it ranged from working at the institution for less than two years to 10 years or more.

3.4 RESEARCH INSTRUMENTS

3.4.1 Biographical Questionnaire

A short biographical questionnaire was developed to collect information to describe the sample. It also included a question to eliminate any participant who did not meet the criteria, namely, to be a full-time academic.

3.4.2 Psychological Capital Questionnaire (24 items)

The Psychological Capital Questionnaire (24 items) was used to measure the PsyCap levels of the respondents. The questionnaire was used as a second-order construct, where the total score for PsyCap was used for analysis. For each item, respondents had to respond on a six-point Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree) (Ekermans & Herbert, 2013). Sample items include: “I can think of many ways to reach my current goals.”; “I feel confident in representing my work area in meetings with management.”; and “I’m optimistic about what will happen to me in the future as it pertains to work.”

Avey et al. (2007) found the reliability of the PsyCap 24-item questionnaire to be 0.89, whilst the reliability of the subscales to be 0.85 (self-efficacy), 0.80 (hope), 0.79 (optimism) and, 0.72 (resilience). Diedricks et al. (2019) conducted a study on the psychological capital levels of academics in South Africa using the 24-item PsyCap Questionnaire. Their analysis of the instrument found that the reliability of the instrument met the 0.70 cutoff point and, therefore, could be considered a reliable measure.

3.4.3 Utrecht Work Engagement Scale (UWES)

The Utrecht Work Engagement Scale (17) was used to measure individuals’ work engagement levels. The UWES is scored on a seven-point frequency rating scale, ranging

from 0 (never) to 6 (always). It was designed to measure work engagement according to three dimensions: vigour, dedication, and absorption (Bruin et al., 2013). Çapri et al. (2016) identified that a total point and subscale points can be acquired for each person during scoring. For the purpose of this study, the scale was treated as uni-dimensional by calculating a total score or work engagement. Example items include: "At my work, I feel bursting with energy"; "I find the work that I do full of meaning and purpose"; and "Time flies when I'm working."

Hoole and Bonnema (2015) found the reliability of the UWES-17 to meet the requirements of 0.70. Their study (work engagement and meaningful work across generational cohorts) found the Cronbach's alpha score of the UWES to be 0.93. This falls in line with previous research on the validity of the reliability of psychometric properties of the UWES in South Africa. For example, the study conducted by Storm and Rothman (2003) also reported a high Cronbach alpha for all three variables, namely vigour (0.78), dedication (0.89) and absorption (0.78). Other studies also report Cronbach alphas in excess of 0.90 (Maximo et al., (2019); Maake et al., (2021) and Musanze & Mayende (2020)).

3.4.4 Job Crafting Scale (JCS)

Tims, Bakker and Derk's Job Crafting Scale was used to measure the level of job crafting the respondents engaged in. Upon analysis of the construct of job crafting, four dimensions were identified, namely, increasing social job resources, increasing structural job resources, increasing challenging job demands, and decreasing hindering job demands (Tims et al., 2012). An example of an item used to measure increasing structural resources is "I try to develop my capabilities." An example of an item used to measure decreasing hindering job demands is "I make sure that my work is mentally less intense." For the sub-dimension increasing social resources, an example of an item used to measure this dimension is "I ask others for feedback on my job performance." Lastly, to measure the dimension of increasing challenging job demands, an example is "If there are new developments, I am one of the first to learn about them and try them out." The JCS makes use of a 5-point Likert scale ranging from never (1) to seldom (2), regularly (3), often (4) and very often (5).

According to Tims et al. (2012), these dimensions could be reliably measured with 21 items. Results of Tims et al.'s (2012) analysis of the JCS indicated that job crafting correlated positively with colleagues' ratings of work engagement, employability and performance,

thereby supporting the criterion validity of the JCS. In a study conducted in South Africa, the Cronbach alpha for all dimensions of the scale was above 0.70 (De Beer et al., 2016). Their study further outlined that the scale showed acceptable levels of discriminant and criterion validity as well as test-retest rest reliability. In terms of test-retest reliability, they found that each dimension scored higher than the extensive criterion of 0.40 (increasing challenging job demands, ***r*** =.77; decreasing social job demands, ***r*** =.49; increasing social job resources, ***r*** =.55; increasing quantitative job demands, ***r*** =.60; Decreasing hindering job demands, ***r*** =.47). Chinelato et al., (2015) found in their study that the JCS had reasonably high reliabilities across all the dimensions namely, increasing challenging job demands (five items, alpha =.75); decreasing hindering job demands (six items, alpha =.79); increasing structural job resources (five items, alpha =.82); increasing social job resources (five items, alpha =.77).

Thomas et al. (2020) conducted a study to determine if job crafting interventions could improve work engagement levels of individuals in the construction industry within South Africa. In their analysis of the job crafting questionnaire, they found that the first dimension, "Increasing social resources", scored a Cronbach alpha of 0.78. The second dimension, "Increasing structural resources", scored a Cronbach alpha of 0.71. The third dimension, "Increasing challenging job demands", scored 0.69. Lastly, the fourth dimension, "Decreasing hindering job demands", scored a Cronbach of 0.73.

3.5 DATA ANALYSIS

SPSS Statistics(SPSS) (version 28) was used for analysing the data within the current research study. The statistical techniques to analyse the data are discussed below.

3.5.1 Descriptive Statistics

Descriptive statistics is the term given to the analysis of data that helps describe, show or summarise data in a meaningful way. It is used, for example, to identify patterns that might emerge from the data. Descriptive statistics do not, however, allow one to make conclusions beyond the data that has been analysed or reach conclusions regarding any hypothesis. It is simply a way to describe the data (Manju & Mathur, 2014).

Descriptive statistical techniques such as frequencies, means and standard deviations were used to provide a general overview of the participants' biographical characteristics.

3.5.2 Inferential Statistics

Inferential statistics use measurements that draw from the sample of subjects in the research study or experiment to either make comparisons or draw conclusions which could lead to generalisations about the larger population group. It mostly separates these techniques from descriptive techniques which largely just summarise data. Inferential statistics attempt to prove assumptions and draw conclusions (Chin & Lee, 2008; Kuhar, 2010).
The following inferential statistics were used in the research study:

3.5.2.1 Item Analysis

Item analysis can be referred to as a set of techniques used to evaluate the characteristics of items before and or after a test or research tool's development and construction. It can be used to specifically see which items are considered poor and affecting the overall reliability of the research survey (Lei & Wu, 2007).

Specifically, item analyses were performed to identify any poor items in the three questionnaires used in this research. This was conducted through SPSS (a statistical analysis software) through the reliability function built into the software.

3.5.2.2 Correlation Analysis

A correlational analysis is a statistical technique that tests the strength of the relationship between two or more variables used within a quantitative research study (Franzese, 2019). Correlational analysis was performed to see if a relationship existed between the various variables used within the current research study. Below outlines how the items were scored.

Table 3.2

Questionnaire	Items
Psychological Capital Questionnaire (24 Item) - Items have PsyCap in front of the name	
Self-Efficacy	1, 2, 3, 4, 5, 6
Hope	7, 8, 9, 10, 11, 12
Resilience	14, 15, 16, 17, 18
Optimism	19, 21, 22, 24
Reverse items	13, 20, 23
Utrecht Work Engagement Scale (UWES) - Items have WE in front of the name	
Vigour	1, 4, 8, 12, 15, 17
Dedication	2, 5, 7, 10, 13
Absorption	3, 6, 9, 11, 14, 16
Tims and Bakkers Job Crafting Scale - Items have JC in front of the name	
Increasing structural job resources:	1, 2, 3, 4, 5
Decreasing hindering job demands:	6, 7, 8, 9, 10, 11
Increasing social job resources:	12, 13, 14, 15, 16
Increasing challenging job demands:	17, 18, 19, 20, 21

Correlational analysis was used to test the following hypothesis:

- H_1: There is a statistically significant direct relationship between PsyCap and work engagement.

3.5.2.3 Test of Indirect Effect

Mediation, also known as the indirect effect, is an extension of simple linear regression in that it adds additional variables to the regression equation. A mediation variable describes how an intervention yields its outcome. In short, it is a mechanism in which X [independent variable] influences Y [dependent variable]. Researchers assume that the independent variable affects the mediator which, in turn, affects the dependent variable (Abu-Bader & Jones, 2021). Baron and Kenny (1986) stated that a variable can function as a mediator in the sequence if it is revealed that a statistically significant relationship exists under the following conditions: the independent variable is a statistically significant predictor of the dependant variable, the independent variable is a significant predictor of the mediator and lastly, if the mediator predicts the dependent variable whilst controlling for the effect of the independent variable. Mediation can be described as either partial (if the effect is statistically significant but not very strong) or full.

PROCESS macro is a bootstrapping statistical computer tool written by Andrew Hayes that serves as an extension for both SPSS and SAS software. The program feature is used to examine mediating or moderating variables' effect on the relationships between independent and dependent variables. It computes the total effects of X on Y, and unlike the Sobel test which assumes a continuous outcome, PROCESS macro can be used for both continuous (linear regression analysis) and dichotomous continuous outcomes (logistic regression analysis) (Hayes, 2021; Jones, 2021)

The research study made use of the PROCESS macro in SPSS to test the following hypotheses:

- H_2: The job crafting dimension, decreasing hindering job demands, has a statistically significant indirect effect on the relationship between PsyCap and work engagement.
- H_3: The job crafting dimension, increasing challenging job demands, has a statistically significant indirect effect on the relationship between PsyCap and work engagement.
- H_4: The job crafting dimension, increasing structural job resources, has a statistically significant indirect effect on the relationship between PsyCap and work engagement.
- H_5: The job crafting dimension, increasing social job resources, has a statistically significant indirect effect on the relationship between PsyCap and work engagement.

3.6 ETHICAL CONSIDERATIONS

The following steps were taken to ensure the data collection processes and analysis abide by ethical standards:

3.6.1 Confidentiality

Confidentiality refers to ensuring that a respondent's details are kept safe and secure and not used in any other way than what was agreed upon. It refers to ensuring that individuals cannot be singled out or have their responses traced back to them (Jahn, 2011).

In order to ensure confidentiality, a consent form was provided assuring the respondents that the data would not be shared with anyone other than those involved in conducting the research and would be used specifically for academic purposes only. Respondents were not

forced to disclose any information that could reveal their identity. All respondents and the institutions were not referred to by name or any other term that could expose their identity.

3.6.2 Non-Maleficence

The principle of non-maleficence is that there is an obligation not to inflict harm on others. Therefore the research should not hurt those who are participating in any way. This also refers to reframing from insulting or offending any of those participating in the research (Jahn, 2011).

To ensure non-maleficence was maintained, respondents had to sign a consent form which would serve to inform them about aspects relating to confidentiality and anonymity. It was made clear that there were no risks involved. Statements were not worded in an offensive manner.

3.6.3 Beneficence

The principle of beneficence holds that the research should be to the benefit of others. This means that one must ensure that risks are kept to a minimum or removed entirely and ensure no harm comes to those participating (Jahn, 2011). This includes the participant's rights to freedom from discomfort and also protection from exploitation (Barrow et al., 2020).

To ensure beneficence was maintained, no questions or statements in the questionnaire were used to reveal the respondent's identity. Certain biographical questions allowed the respondents to avoid answering the question by selecting options such as "Prefer not to say" or "Not Applicable". The collected data was specifically used for research purposes and not for anything else.

3.6.4 Justice

Justice refers to ensuring that the risks and benefits associated with the research are equally distributed among those that participate (Jahn, 2011). This refers to the individual's right to be treated fairly and their right to privacy (Barrow et al., 2020).

Individuals were informed that none of the data they provided would be used to reveal their identity. In addition, no individual was signalled out in the research study and all respondents were informed of their rights and that no risks were involved in the research study.

3.6.5 Autonomy

Autonomy refers to respecting an individual's decisions, including their decision to withdraw from a study. This requires the researcher to treat those who are participating with respect and to be as truthful as possible (Jahn, 2011). Autonomy also refers to individuals being able to ask questions and not being coerced into participating in the study (Barrow et al., 2020).

To ensure autonomy was maintained, all individuals were informed that should they wish to withdraw, they may do so at any time (this was included on the consent form). Individuals were also informed that should they have any questions, they may contact the lead researcher.

3.6.6 Informed Consent

Informed consent refers to a written or typed-out form that allows an individual to indicate whether they are willing to participate in a research study and whether they give the researcher the right to utilise the data they provide to draw conclusions. This form is required for ethical purposes and must be written in a language that is easily understood by the participant (Manti & Licari, 2018).

All respondents were provided with an information sheet where they were informed of their rights and what the information they provided would be used for. They were informed that in order for the data to be used, consent must be given. They were informed that should they wish not to participate or, at a later stage, no longer wish to have their data used within the study, they could withdraw without any negative consequences.

3.7 CONCLUDING REMARKS

The chapter highlighted the various aspects in which the data for the study was collected, outlining aspects such as the instruments used within the research study, how the data was analysed and the ethics used to guide the process. All three questionnaires used within this research study were found to be reliable and valid. The following chapter will focus on analysing the data collected through the research instruments.

CHAPTER 4

ANALYSIS OF RESULTS

4.1 INTRODUCTION

The following chapter covers the analysis aspect of the research study. Aspects covered in this chapter include the results of the analysis as well as tables highlighting the various figures. Focus was placed on aspects such as demographics, descriptive statistics, correlations and mediation. The reliability of the instruments used in the study is also discussed. SPSS was used to process the data collected through an online survey (more of this is discussed in the previous chapter). A discussion of the results related to the hypotheses is presented.

The number of responses acquired through the survey was 156. All responses recorded had fully completed the questionnaires. No problematic items were found in the analysis; thus, none of the responses (that fit the criteria) had to be ignored or deleted.

4.2 RESULTS OF DESCRIPTIVE STATISTICS AND CORRELATION ANALYSIS

Table 4.1 *Descriptive Statistics and Correlations*

	Mean	**Std. Deviation**	**Cronbach alpha**	**1**	**2**	**3**	**4**	**5**	**6**
1.Work Engagement	4.1882	.84614	.924	1	.629	.535**	.189*	.049	.531**
2. Psychological Capital	4.6004	.65175	.916		1	.523**	.184*	-.023	.415**
3. Increasing structural job resources	3.1103	.66828	.843			1	.259**	.223**	.562**
4.Increasing social job resources	1.4782	.84229	.849				1	.403**	.254**
5. Decreasing hindering job demands	1.7447	.78595	.824					1	.054
6. Increasing challenging job demands	2.4897	.81638	.819						1

With regard to mean responses from the UWES scale and in relation to the norm groups outlined by Schaufeli and Bakker (2004), the responses of the current survey scored within the average category. As outlined by Schaufeli et al. (2004) the average category falls within the mean score range of 3.07 – 4.66. The current research responses indicated a mean value of 4.1882, which falls within that range.

Regarding the Psychological Questionnaire (24 items), the mean, as highlighted in Table 1, is 4.6 which indicates that average amount of respondents for the questionnaire chose between the Likert scale option of 4 "Somewhat Agree" to 5 "Agree". In terms of the Job Crafting Scale, for the dimension of "Increasing structural job resources", the average response is linked to option 3 which is the "Regularly" scale anchor. In terms of "Increasing social job resources", the mean responses were option 1 which is the "Never" option. Similar results for "decreasing hindering job demands". Lastly, for the dimension of "Increasing challenging job demands", the average response is option 2 which was the "Seldom" option.

The Standard Deviation for the Work Engagement Scale indicated that most of the responses were close to the mean value as the standard deviation value of.84614. For the job crafting dimensions, increasing social job resources, decreasing hindering job demands and increasing challenging job demands, the standard deviation indicated that most responses were close to the mean score since the response values are closest to 0. Whilst the Psychological questionnaire and increasing structural job resources scored a standard deviation slightly further from 0 indicating the responses were slightly more spread out.

Reliability analysis was performed on all three of the main surveys used within the research study, namely the UWES Work Engagement Scale, Psychological Questionnaire (24 Items) and Tims and Bakker's Job Crafting Scale. For the job crafting scale, the individual dimensions reliability was analysed whilst the other two questionnaires were analysed based on the total score. Based on Table 1, the Cronbach alpha for the UWES Work Engagement Scale, Psychological Questionnaire (24 Item) and the individual dimensions of job crafting that make up the Tims and Bakker's Job crafting scale all scored a Cronbach alpha over 0.70, and based on the rule of reliability this implies that all the questionnaires were reliable and thus a good measure of the construct. For The UWES Work Engagement Scale, the Cronbach alpha was .924; for the Psychological Questionnaire, the Cronbach alpha was .916. Both these values indicate that the internal consistency of the two measures can be considered

reliable. For the Job Crafting scale, the Cronbach alpha for each dimension was as follows: Increasing structural job resources (.843), Increasing social job resources (.849), Decreasing hindering job demands (.824) and Increasing challenging job demands (.819). This indicates that for each of the dimensions of the Job crafting scale, the internal consistency was found to be high and that the job crafting scale could be considered a reliable measure for job crafting.

4.3 RESULTS FROM THE CORRELATION ANALYSIS

4.3.1 H_1: There is a statistically significant direct relationship between PsyCap and work engagement.

Hypothesis 1 was tested using correlational analysis in order to identify if a relationship exists between PsyCap and work engagement. Table 4.1 shows that the correlation between PsyCap and work engagement is .629. This number indicates that there is a significant positive relationship between PsyCap and work engagement. One can therefore assume, based on this, that when PsyCap levels are high amongst academics, the level of engagement they have for their work will also be high. Therefore, as PsyCap increases, so does work engagement. Based on this, hypothesis 1 is accepted.

4.4 RESULTS FROM THE ANALYSIS OF INDIRECT EFFECT

To analyse for the indirect effect that job crafting has on the relationship between PsyCap and work engagement, bootstrapping analysis was used following the PROCESS macro method from Preacher and Hayes (Hayes, 2022). A series of analyses were conducted to teach hypotheses 2-5, using Model 4 of the PROCESS macro for simple mediation. Each of the hypotheses that are discussed below was analysed using the method.

Table 4.2 S*ummary of Indirect Effect Results* (*n* =156)

Dimension					
	Beta	Effect	BSE	LLCI	ULCI
Increasing social resources	.0757	.0139	.0136	-.0096	.0445
Increasing structural resources	.2836	.1484	.0443	.0689	.2418
Decreasing hindering job demands	.0631	-.0015	.0083	-.0231	.0125
Increasing challenging job demands	.3265	.1355	.0353	.0669	.2038

Note. BSE = Bootstrap standardised effects; LLCI = Lower level confidence interval; ULCI = Upper confidence interval

Standardised coefficients for each dimension were used as the beta values.

4.4.1 H_2: the job crafting dimension, decreasing hindering job demands, has a statistically significant indirect effect on the relationship between PsyCap and work engagement.

Based on the PROCESS macro method, if the LLCI value passes through 0 when it reaches the ULCI value, one can assume that no significant indirect of the mediator effect exists on the relationship between PsyCap and work engagement. The analysis of the indirect effect that reducing hindering job demands has on the relationship between PsyCap and work engagement showed that the lower LLCI (-.0231) did pass through 0 when reaching the ULCI (.0125), (β = 0.631 (-.0231,.0125)), as shown in Table 4.2. Therefore the assumption is made that decreasing hindering job demands has no significant indirect effect on the relationship between PsyCap and work engagement. This could be a result of academics not having the ability to ignore or remove tasks or responsibilities that could pose a hindrance to them and managing their work life. For example, regardless of what changes the academic makes, they are still largely responsible for overseeing the module, marking the assessments and dealing with queries. Whilst these factors can be managed, work overload is still a major stress factor and whilst management of these demands can be obtained, it may not be possible for academics to decrease or simply ignore those challenges. Based on this, hypothesis 2 cannot be supported and therefore is rejected.

4.4.2 H_3: The job crafting dimension, increasing challenging job demands, has a statistically significant indirect effect on the relationship between PsyCap and work engagement.

The analysis of the indirect effect that increasing challenging job demands had on the relationship between PsyCap and work engagement showed that the lower LLCI did not pass through 0 when reaching the ULCI (β = 0.3265 (.0669, .2038)) as indicated in Table 4.2. Therefore, it can be assumed that increasing challenging job demands has a significant indirect effect on the relationship between PsyCap and work engagement. This could be a result of academics having to adjust their teaching methods to accommodate the shift to online learning and dealing with a more diverse group of students. With these challenges presented to them, academics had to be more creative in how they would facilitate their classes and learn new skills (online platforms etc.) in terms of meeting these challenges. Another aspect could be with the shift to off-campus work, academics had very little physical interaction with their peers, and because of this, they had to look for new ways in which to

engage with their colleagues and students and create an environment suitable for learning. Based on this, hypothesis 3 is accepted.

4.4.3 H_4: The job crafting dimension, increasing structural job resources, has a statistically significant indirect effect on the relationship between PsyCap and work engagement.

The mediation results for the indirect effect increasing structural resources has on the relationship between PsyCap and work engagement showed that the lower LLCI did not pass through 0 when reaching the ULCI (β = 0.2836 (.0689,.2418)) as shown in Table 4.2. Therefore, one can assume that increasing structural resources has a significant indirect effect on mediating the relationship between PsyCap and work engagement. This could be a result of academics having more options to conduct the learning (examples of new structural resources include aspects such as online learning and online quizzes), allowing them a greater deal of autonomy over their work which in turn allows them to adjust the tasks in a way that they see fit. Based on this, hypothesis 4 is supported and therefore is accepted.

4.4.4 H_5: The job crafting dimension, increasing social job resources, has a statistically significant indirect effect on the relationship between PsyCap and work engagement.

Based on the PROCESS Marco bootstrapping analysis, the results for testing the indirect effect of increasing social job resources on the relationship between PsyCap and work engagement showed that the lower LLCI (-.0096) did pass through 0 when reaching the ULCI (.0445). β = 0.0757 (-.0096, .0445), as shown in Table 4.2. Therefore, the assumption can be made that increasing social job resources has no significant indirect effect on the relationship between PsyCap and work engagement. Some aspects to consider as to why this is the case is that whilst academics do work in a socially interactive environment, most academics are solely responsible for the management of their modules and, therefore, cannot rely on or do not get the chance to engage or draw on support from other academics. The shift to online learning also could have had an impact. With online learning, academics have fewer opportunities to engage with other lecturers as they have to shift from face-to-face engagement to working on online platforms.

Therefore, based on the results, Hypothesis 5 cannot be supported and therefore is rejected.

4.5 CONCLUDING REMARKS

The chapter highlighted the output from the SPSS analysis of the survey data providing insight into aspects such as the correlations, indirect effect and descriptive statistics. The information gained will therefore serve as the basis for the discussion in chapter 5 to highlight how the results compare to prior studies and research.

CHAPTER 5

DISCUSSION, LIMITATIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

This research study aims to determine to what extent job crafting mediates or influences the relationship between psychological capital and work engagement. The focus point of the study was on full-time academics working at various institutions throughout South Africa. This chapter will discuss the findings and limitations of this research study. Lastly, recommendations for the future and implications for academics will also be highlighted.

5.2 RESULTS AND DISCUSSION

The present study attempted to answer the following research questions:

- What is the relationship between psychological capital and work engagement?
- Does job crafting behaviours (that is, decreasing hindering job demands, increasing social resources, increasing structural resources, increasing challenging job demands) influence the relationship between employees levels of PsyCap and work engagement?

The research objectives of this research study were as follows:

- To determine the relationship between PsyCap and work engagement.
- To determine the indirect effect of job crafting behaviours (that is, decreasing hindering job demands, increasing social resources, increasing structural resources, increasing challenging job demands) on the relationship between PsyCap and work engagement levels.

While job crafting dimensions were examined individually, the PsyCap and work engagement variables were treated as uni-dimensional constructs. The first objective of this research was examined by examining the relationship between the uni-dimensional construct of psychological capital and work engagement. The second objective was examined by identifying the mediating effect that each job crafting dimension (that is, decreasing hindering job demands, increasing social resources, increasing structural resources,

increasing challenging job demands) had on the relationship between psychological capital and work engagement. The findings of the research aided in either supporting the hypothesis that stated i) whether a relationship did exist or ii) a certain job crafting dimension did or did not mediate that relationship.

The research study found that while a relationship existed between psychological capital and work engagement (addressing objective one), only certain dimensions of job crafting, more specifically increasing structural resources and increasing challenging job demands, mediated the relationship between PsyCap and work engagement. The following sections focuses on the discussion of the results obtained in the present study and makes reference to the findings of other studies conducted.

5.2.1 Relationship Between Psychological Capital and Work Engagement (Hypothesis 1)

The results of the current research study confirm that a positive relationship exists between psychological capital (PsyCap) and work engagement. This implies that if psychological capital is high then work engagement levels of employees would also be high. These results are in line with a number of research studies that were conducted to understand the relationship between these variables (Banerjee & Yadav, 2017; Dhawan & Maini, 2021; Rizana et al., 2022).

Hussein and Amiruddin's (2020) study found that only two of psychological capital's dimensions, self-efficacy and optimism, had a significant positive relationship with work engagement. Hope and resilience, on the other hand, did not have any relationship with work engagement. In contrast, Rizana et al., (2022) found in their study, that hope and resilience did have a positive relationship with employee's work engagement. Regardless of these differences relating to specific variable dimensions, it appears that individuals PsyCap levels do indeed influence work engagement of employees. This notion gains further support from the studies conducted by Dhawan and Maini (2021), Diedericks et al. (2019) as well as Giancaspro et al., (2022). Dhawan and Maini's (2021) found that upon conducting a correlation analysis that was based on results from college teachers, there was a significant relationship between psychological capital and college teachers work engagement levels. Giancaspro et al. (2022) found similar results in their study suggesting that employees who tend to have higher PsyCap levels generally tended to display higher levels of work

engagement than those who did not. PsyCap has widely been considered a valuable resource in many positive work related outcomes such as work engagement. Extensive studies have been done to understand the relationship between these two variables and the findings of this current study only further supports it. Giancaspro et al. (2022) highlighted that, just as the JDR model illustrates, personal resources (such as PsyCap) can potentially motivate and guide employees which, in turn, can lead to higher levels of work engagement. Amongst academics it seems that if PsyCap levels are high, their work engagement levels will also increase.

Similar findings were also reported in Külekçi's (2021) study on academics and their perceptions. According to Külekçi (2021), high PsyCap levels was a good indicator as it allows the academic to more positively shape and influence the classroom and student experience. They found that the best way for academics to build and improve on their PsyCap levels, is to receive organisational support as well as economic support. Kalman and Summak (2017) also found similar results with teachers and imparted that making educators develop a sense of self awareness of their personal resources, making them take ownership and also improving their self-confidence were significant ways to improve their PsyCap levels. Likewise, Dhawan and Maini (2021) established that sending lecturers to workshops, providing support and also through motivational lectures, the PsyCap levels of academics could be increased. It can be concluded that literature findings seem to concur with the results of the current study and those of several researchers (Dhawan & Maini,2021; Giancaspro et al., 2021).

5.2.2 The Effect of Job Crafting Dimensions on the Relationship Between PsyCap and Work Engagement

Studies suggest that job crafting plays a significant role in the relationship between PsyCap and work engagement (Makikangas et al., 2022; Rajalakshmi & Gayathri, 2022). While most research studies do provide support, there are contradictory findings regarding which specific job crafting behaviours influence these variables, particularly work engagement. Psychological well-being of academics could be enhanced by decreasing the workload of academics, ensuring variety in their tasks and providing different learning opportunities as well as autonomy in their jobs. Job resources, referring to physical, social or organisational aspects of the job could, for example, could reduce job demands and the associated physiological and psychological costs could be increased (Diedericks at al., 2019).

In terms of the influence job crafting has on work engagement, Theron's (2022) study on academic staff revealed that job crafting had little influence on the relationship between job demands and job resources on work engagement. According to Theron (2022), neither of these dimensions weakened or strengthened employee work engagement. In contrast to Theron (2022), some prior research on academics, such as those conducted by Arachie et al. (2021) and Dubbelt et al. (2019) found that in academic institutions, job crafting had the potential to lead to positive outcomes such as individuals becoming more engaged with their work and finding more positive work meaning. Dubbelt et al. (2019) in particular highlighted that seeking resources in the academic space, seem to have a positive effect on academic lecturers work engagement levels. They further proposed that in their study, they managed to establish that job crafting had a relationship with certain motivational outcomes such as work engagement. They also found that seeking resources and reducing demands had the highest predictive values in terms of these outcomes.

Rajalakshmi and Gayathri (2022) highlighted that in the teaching profession, job crafting alongside PsyCap, plays a role in work engagement. They found that a positive relationship exists between these variables and that if job crafting is engaged in and PsyCap levels are high, work engagement also tends to be higher in academic staff. Makikangas et al. (2022) found that in terms of remote work, PsyCap resources and job crafting behaviours also had an impact on employee work engagement levels. They found that employees who exhibited high levels of work engagement tended to engage in job crafting and also exhibited certain PsyCap resources such as job-related self-efficacy. These findings provide sufficient support to suggest that job crafting and PsyCap have a strong positive relationship with work engagement.

In terms of the research findings of this study it was found that job crafting and PsyCap influenced work engagement however, only certain dimensions of job crafting had a statistically significant mediating effect on the relationship between PsyCap and work engagement. These findings are discussed below:

5.2.2.1 Increasing Job Resources (Structural and Social)

The current research study found that increasing structural resources significantly mediated the relationship between work engagement and psychological capital (hypothesis 4). Based

on this finding, it is suggested that individuals who increased their structural resources tended to build their PsyCap levels which, in turn, influenced their work engagement levels. These findings correspond with those of Demerouti et al. (2016) and Siddaq (2015) with regards to the impact increasing structural resources has on work engagement. The researchers are of the opinion that individuals who actively seek out to increase their structural based resources, such as trying new tasks or opportunities, also saw an increase in their work engagement levels. However, a study conducted by Hussein and Amiruddin (2020) found that increasing structural resources had no effect on employees' work engagement. Hussein and Amiruddin (2020) insinuated that this could be due to the fact that job crafting is seen as a behaviour that occurs daily and regularly and potentially needs to be assessed over time.

The findings of this research study correspond somewhat to that of Zulhasmi et al's. (2021) study. According to their findings, both PsyCap and job resources (structural and social) improved the work engagement levels of employees. The reason for this could be in Zulhasmi et al.'s (2021) study, structural and social resources were combined into a uni-dimensional construct of job resources whereas, the current research study only found that structural resources mediated the relationship between PsyCap and work engagement and not social job resources. Contrary to the findings of Harju et al's. (2016) study, the results of the current study revealed that high levels of increasing structural job resources influenced employees work engagement levels. Harju et al. (2016) purported that positive outcomes such as work engagement, as a result of increasing job resources, may only be short lived. They cited several reasons for this namely, (i) that they could not find any substantial proof to suggest increasing structural resources (trying new tasks) predicted future work engagement and (ii) that highly educated employees may have the capabilities and motivation to increase their job resources (social and structural). They claimed that without long-term opportunities (challenges) in which employees can employ these resources, the potential benefits may go un-harvested.

In terms of increasing social job resources (hypothesis 5), the findings of this research study did not find a significant mediating effect of social job resources in the relationship between PsyCap and work engagement. The finding of this research study contradicts the findings of studies carried out by Hussein and Amiruddin (2020) and Kerksieck et al. (2019) who found that increasing social job resources tended to have a positive influence on both psychological capital and work engagement. Hussein and Amiruddin (2020) in particular, found that out of all the job crafting dimensions, only increasing social resources influenced work engagement

levels of their participants, The difference in the findings of the current research study and that of Hussein and Amiruddin (2020) could be as a result of the influence of the pandemic and also the environment in which academic lecturers work. Based on this they may not actively have opportunities to build on and/or draw on social resources at work.

5.2.2.2 Decreasing Hindering Job Demands

The current research findings suggest that decreasing hindering job demands does not have a significant mediating effect on the relationship between PsyCap and work engagement (hypothesis 2). This aligns with prior studies conducted by De Beer et al. (2016), Steenbergen et al., (2017) and Van Wingerden' et al. (2015). Van Wingerden et al.'s (2015) study found that teachers or educators did not succeed in decreasing their hindering job demands. Likewise their personal (PsyCap) resource, resilience, did not increase when the participants took part in the job crafting interventions they subjected the participants to. They theorised that reducing hindering job demands does not increase work engagement, as in their study, when the job intervention focused on reducing hindering job demands, the results showed that individuals' work engagement levels did not increase. They further argued that in line with earlier research decreasing hindering job demands could potentially have a negative effect on work engagement or be unrelated. Steenbergenet et al. (2017) conducted a study to determine if aspects such as work engagement, job resources and burnout changed over time. They found that the changing world of work and new ways in which individuals could work were beneficial in reducing mental demands and workload. However they found PsyCap levels had no influence on the transition to new ways of working.

Some research studies, such as those conducted by Dubbelt et al. (2019) and Sakuraya et al. (2016), did suggest that reducing hindering job demands could have an impact on both PsyCap and work engagement. Dubbelt et al. (2019) found that reducing hindering job demands had a negative relationship with certain work-based outcomes such as work engagement. Sakuraya et al. (2016) also found that a potential relationship existed between these variables but highlighted that a more longitudinal research study would be needed to verify the nature of that relationship.

5.2.2.3 Increasing Challenging Job Demands

The findings of this research study suggested that increasing challenging job demands does significantly mediate the relationship between PsyCap and work engagement (hypothesis 3).

This seems to align with several researchers who suggested that individuals who had higher levels of PsyCap are better able to deal with challenging job demands (Fernando et al. 2020; Zamralita & Saraswati, 2021). The nature of the impact that increasing challenging job demands and PsyCap has on work engagement also aligns with the findings of the current research study. Research has suggested that academics, who have high levels of PsyCap and who engage in job crafting (including increasing challenging job demands), are shown to have higher levels of certain work-related conditions such as work engagement than those who possess low levels of PsyCap and who do not engage in job crafting (Gustitia, 2019; Ogbuanya & Chukwuedo, 2017).

Several research studies have also highlighted how increasing challenges and job demands have placed greater levels of pressure on academics (Diedericks at al., 2019, Naidoo-Chetty & Du Plessis, 2021). Due to changes in the working environment, challenges faced through the pandemic and continuous pressure has resulted in academics seeing an increase in job demands (Kendrick, Hlatywayo & Pieters, 2020; Naidoo-Chetty & Du Plessis, 2021; Ogbuanya & Chukwuedo, 2017). Evidence from these studies suggests that as these job demands increase, it has an effect on other work related conditions such as work engagement which further corroborate the findings of the current research study. It seems that as challenging job demands increase and if employees have high levels of PsyCap resources, their work engagement levels will also increase as they are better suited to deal with the pressure and therefore, in turn, become more engaged with their work.

The nature of this research did not particularly highlight what challenging job demands lecturers are currently facing. Aspects such as a shift to online learning, remote work, adjusting to hybrid teaching modes, and lack of student-peer interaction could be seen as possible challenges that academic lecturers are currently facing and therefore need to adjust to. Rising to these new challenging job demands seemed to have a positive mediating effect between employees' PsyCap levels and work engagement levels. With the PsyCap levels and work engagement levels being higher in those that saw an increase in challenging job demands.

5.3 LIMITATIONS

Although much was done to ensure that an adequate and accurate representative sample could be drawn, there were several challenges that were faced in conducting this research study.

The sample size of the present study is small and does not allow for generalisation of the findings to the academic population. Initially only one university was envisaged as the research population. However, the response rate continued to be low despite the questionnaire being disseminated a number of times. The researcher was forced to extend the sample to include a number of universities across South Africa in an attempt to improve the response rate. Whilst the inclusion of other universities in the study is beneficial to a representative view from institutions across South Africa, the response rate still remained low.

The study did not make use of self reporting questionnaires, which meant that respondents could not provide any personal opinions or thoughts or elaborate on certain points thus limiting the information that could be drawn from them.

The study was aimed at full time academics only and excluded those who were in part- time and contract positions. While it is unclear what numbers of academics in universities are part time and contract, it is possible that more responses could have been collected if the sample included all academic levels. This therefore posed a challenge if certain universities had more contract or part-time lecturers than permanent full-time academic staff. By collecting responses from all types of academic lecturers a more comprehensive observation could be drawn however, it is also possible that full time academics and part time/contract academics have different responsibilities which, in turn, would impact the variables of this study.

5.4 RECOMMENDATIONS

Below a few recommendations for future research will be discussed:

The quantitative nature of this research study was able to identify correlations and mediation effects but was not able to identify the exact nature of how these academics engage in the various behaviours. For example, what do researchers do in order to build their PsyCap levels, what academics do to increase their structural resources. A possible future area or extension of this study would be to engage with academics and find out what particular activities or resources they draw on that falls within the scope of the research study variables (PsyCap, job crafting, and work engagement). A possible mixed method to gain qualitative data regarding the way academics engage in these behaviours would be a good way to provide more substantive information to support findings.

To fully understand job crafting's impact on the relationship between PsyCap and work engagement in terms of academics, each of these dimensions should be examined over a period of time and therefore a cross sectional study could help draw further conclusions as to what role increasing social resources play on the relationship between PsyCap and work engagement since job crafting behaviours are exhibited almost daily.

Combining or extending the research to include the nature of the academic lecturing environment and what it allows and does not allow will also help to draw more tangible conclusions as to how academics can build up their PsyCap levels and also engage in job crafting. Examining the different academic lecturing ranks (junior lecturer, senior lecturer, professor, etc) can also help to further contribute to understanding the mediating effect job crafting has on the relationship between PsyCap and work engagement. As differently ranked lecturers may engage in different tasks and have different responsibilities it is also possible that their specific engagement and PsyCap levels may differ. Extending the research to include and cover the impact job crafting has on the relationship between PsyCap and work engagement of various differently ranked academics and investigating the differences that might be present would help draw a more comprehensive viewpoint on the role of job crafting .

5.5 IMPLICATIONS FOR ACADEMICS

The current study contributes to literature by examining and providing further support for the notion that psychological capital and work engagement possess a positive relationship. The importance for understanding employee work engagement in a working environment has been studied extensively, but in the changing world of work where various other facets such as demanding job tasks, shifting responsibilities have become the norm the need to keep examining this relationship remains present. For example, during Covid 19 the shift to online work was a major transition for employees including academics and assessing whether or not that had an influence on the engagement of the employees became an importance in order for organizations to gain a better idea of how to keep their staff engaged(Dison et al., 2022; Fernandez & Shaw, 2020). The shift to remote work changed academic staff's duties and responsibilities and also their access to resources which seemed to have had an impact on their engagement levels (Fernandez & Shaw, 2020; Moodley, 2022). However studies have also shown maintaining high levels of PsyCap tended to benefit and raise engagement levels.

These results are further supported by the results of this current research study. The results, suggest that even with shifting work duties and changes in work environments, if individuals have high levels of PsyCap their work engagement would generally also be high. This suggests, to academic institutions, that PsyCap is valuable personal resource employees can draw from and institutions need to further invest in certain programmes to help individuals develop that resource. By making employees aware of this particular personal resource, institutions can help employees maintain work engagement levels even during difficult times and transitions.

In terms of job crafting, this study contributes to literature by identifying which dimensions of job crafting seem to affect the relationship between PsyCap and Work engagement in the academic space. While research studies have provided evidence to suggest that job crafting positively influences the relationship between work engagement and psycap, conflicting results persist in terms of which dimensions influences the relationship. The current study highlighted that two dimensions mediated the relationship between PsyCap and work engagement. This both supports some research findings and differs from others. It is therefore recommended that further studies should be conducted on the various job crafting dimensions and their influences on work engagement. It is also recommended that institutions should invest into understanding what aspects related to job crafting they can allow for academics in order to boost their PsyCap and work engagement levels.

5.6 CONCLUSION

Research has provided sufficient data to draw certain conclusions about the nature of the relationship between job crafting, PsyCap and work engagement. However, with conflicting reports and findings, there is still plenty of room for further research into the space of PsyCap and job crafting. Furthermore, as job crafting behaviours change over time, one can theorise, so can its effects and relationships. Whilst this study provided some support to suggest that job crafting does successfully mediate the relationship between PsyCap and work engagement, it is clear that there are many different aspects that still need to be explored to gain a much more comprehensive understanding of the nature of job crafting.

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