Job insecurity and work engagement of staff in higher education: The role of job crafting

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Mini-dissertation accepted in fulfilment of the requirements for the degree *Master of Arts in Industrial Psychology* *at* the North-West University

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Graduation: July 2020

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ACKNOWLEDGEMENTS

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I further declare that this work will not be submitted to any other academic institution for qualification purposes.

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March 2020

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TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

SUMMARY

Title:

Job insecurity and work engagement of staff in higher education: The role of job crafting.

Key words:

Job insecurity, work engagement, university staff, academic staff, support staff, public higher education institutions, higher education, moderation, buffer, job crafting, South Africa

Higher education institutions (HEIs) in South Africa are, to no small extent, driven by change and transformation. Change and transformation of HEIs in the country originate from the strategy to redress inequalities of the apartheid era and is the driving force of the country's own development and transformation. University mergers that started in 2003 contributed to the 1994 democratic government's transformation agenda of the South African society. In recent years, however, the challenges experienced by public higher education institutions in the country have led to debates around the crisis faced by South Africa's universities. Those challenges facing higher education, including inadequate access, decolonisation of universities and poor finance strategies, add to the plight of higher education in the country. Despite some achievements in the higher education system, the insufficient progress of the transformation agenda of higher education in the country became apparent during the 2015 and 2016 student protests. These protests emerged as a demonstration of the frustrations with the country's leaders to expose the shortcomings and failures of the transformation of South Africa's higher education.

Changes such as transformation, mergers and unrest in an organisation result in job insecurity. Job insecurity is a job stressor which results in significant adverse outcomes for employers and employees. One of the negative consequences of job insecurity is reduced work engagement, which in turn has an impact on well-being and performance. Thus, there is a need to find ways to improve the work engagement of employees. University staff needs ways of coping with the adverse effects that job insecurity has on work engagement. Job crafting could be a possible buffer to the impact that job insecurity has on the work engagement of staff members.

The research followed a quantitative cross-sectional research design. A total of 857 questionnaires were completed from different public higher education institutions in South Africa. The Job Insecurity Scale, the Utrecht Work Engagement Scale UWES-3, and the Overarching Job Crafting Scale were administered. Descriptive statistics, reliability and correlation coefficients, measurement models, structural models, goodness-of-fit statistics and PROCESS macro were used to analyse the data. The results revealed that job insecurity had a negative relationship with work engagement. Qualitative job insecurity demonstrated a stronger relationship with reduced engagement than quantitative job insecurity.

Furthermore, job crafting was found to buffer the association between qualitative job insecurity and work engagement. In the case of quantitative job insecurity, job crafting buffered the negative impact of job insecurity on work engagement at low and mean levels of job crafting. This buffer effect was however not statistically significant at high levels of job crafting. Overall, these findings indicate that the presence of job crafting decreases the negative consequences of job insecurity on work engagement.

Organisations can, therefore, incorporate job crafting as a bottom-up strategy for employees to use as a buffer of the negative consequences of job insecurity on work engagement.

Recommendations concerning future research were made.

CHAPTER 1: INTRODUCTION AND BACKGROUND

This mini dissertation aims to investigate the relationship between job insecurity, work engagement and job crafting of staff in public higher education institutions in South Africa.

Chapter 1 provides the background, problem statement and literature review of the study, followed by the research objectives, the research method and the division of chapters.

1.1   INTRODUCTION

Two decades into democracy, South Africa is working hard at rebuilding and transforming the country's key social institutions in an attempt to address challenges such as inequality, need for economic growth and poverty (Council on Higher Education [CHE], 2016). In South Africa, higher education plays an essential role in the ongoing transformation and development of the country (Badat, 2010; Pouris & Inglesi-Lotz, 2014). Funding challenges in the country could, therefore, jeopardise higher education from attaining its vital policy goals (Wangenge-Ouma & Cloete, 2008). Higher education in South Africa claims to have advanced most in achieving national goals of equality, equity and transformation (CHE, 2016). However, despite the advances and achievements, economic challenges faced by South Africa introduced changes to the nature of work in higher education. Given that the state is the most critical source of funding for South Africa's public universities, a declining trend in funding of higher education contributes to its challenges (Badat, 2015; Wangenge-Ouma & Cloete, 2008). According to a 2015 PwC report, unless South Africa finds a way to reduce the costs of delivering higher education, an increased number of enrolments will require increased funding (PwC South Africa, 2015). When state funding declines, it puts the burden on students through the increase of tuition fees (Badat, 2015; PwC South Africa, 2015).

Despite governments effort to allocate a considerable amount of money to education, its expenditure on higher education is not adequate for what is needed. (CHE, 2016). State allocation of funding in South African HEIs has previously been reported to be quite low when compared to the rest of the world (Badat, 2015; National Advisory Council on Innovation [NACI], 2006; PwC South Africa, 2015). This gap is due to the high uncertainty and instability that arises from a lack of clear funding policy (CHE, 2016). According to the

National Research Foundation (NRF), the National Research Facilities are primarily funded from the parliamentary grant. Therefore, a reduction in government funding largely impairs the sustainability and performance of the National Research Facilities, which, in turn, affect research productivity (NRF Annual Performance Plan, 2018/19-2020/21) (NRF, 2018). De La Rey and Bawa (2017) state that budget cuts to the research enterprise contribute to the strain that higher education is experiencing.

Although university management has been working on securing more financial resources from the state and making attempts to decolonise the university, the student protests that began in 2015 materialised the shortcomings and failures of the transformation of South Africa's higher education (Carolin, 2018). The movement-fuelled discussions regarding university fee increases, education system decolonisation, and university transformation aimed at addressing racial and gender inequalities in employment equity and the use of labour brokers for general workers (Langa, 2017).

The former South African Minister of Higher Education, Minister Naledi Pandor, introduced the Department of Higher Education and Training's 2018 Budget vote. In her speech, she highlighted three challenges that have affected higher education in South Africa: "The first is the #Fees Must Fall and decolonisation of higher education protests. The second is the urgency to produce skilled human resources who will be able to play a role in knowledge creation in different spheres of human endeavour and to contribute to inclusive economic growth. The third is the world's increasing focus on the Fourth Industrial Revolution and its implications for business and education sectors" (Department of Higher Education and Training [DHET], 2018, p. 1). The former chairperson of the CHE highlighted that higher education offers little job security, meaning that staff leave if they can find secure employment elsewhere (CHE, 2015). Thus, the student-to-faculty ratio has worsened over the last two decades (CHE, 2016). Consequently, the quality of education has been affected, and has had an impact on the demands for a technology driven economy and training of exceedingly competent students, that are empowered to lead in volatile and competitive environment whilst also addressing the needs of society. (Badat, 2010).

The plan to redress the education system and pressures resulting from demands in student access to education, led to a need for restructuring which affects both management and employees (Coetzee & Rothmann, 2005, Viljoen & Rothmann, 2009). Organisational change

policies that involve employment reduction through downsizing and restructuring are likely to increase job insecurity (Gallie, Felstead, Green, & Inanc, 2017).

1.2   PROBLEM STATEMENT

Job insecurity is a problem and an important aspect to focus on during uncertain times, as it is characterised by its implied nature of being unpredictable and uncontrollable, resulting in the sense of powerlessness for the individual to maintain continuity in a threatened job situation (De Witte, 2005; Greenhalgh & Rosenblatt, 1984). Job insecurity is characterised by the anticipation of a stressful event, where employees perceive that the nature and continued existence of their jobs are at risk (Sverke, Hellgren, & Näswell, 2002). The concept of job insecurity is multidimensional in that there is a quantitative and a qualitative definition of job insecurity. Quantitatively, job insecurity is defined as "perceived threat of job loss and the worries related to that threat" (De Witte, 2005, p. 1). Qualitatively, job insecurity refers to the prospect of potentially losing valued job aspects and concerns or worries about the loss of essential job features such as degeneration of working conditions, lack of career opportunities, and salary development (De Witte, 2005; Hellgren, Sverke, & Isaksson, 1999).

As jobs represent a substantial portion of adult life, the perception or anticipation of something so significant being threatened provokes strong psychological and behavioural reactions, which negatively affect productivity in the workplace (Greenhalgh & Rosenblatt, 2010). Longitudinal research on job insecurity suggests that continued job insecurity has more consequences for employees' well-being than actual dismissal (De Witte, Vander Elst, & De Cuyper, 2015). Job insecurity is a disruption to the workplace as it has detrimental consequences for well-being and psychological health and adverse outcomes such as reduced work engagement for organisations (Griep et al., 2016).

During profound changes in the world of work, organisations become interested in engagement (Schaufeli, 2013). Work engagement relates to employees' ability and willingness to invest in their jobs from a psychological point of view. Work engagement leads to positive outcomes for the organisation, both at an individual and team level (Schaufeli, 2013). Work engagement is defined as maintaining a positive work-related state of mind that is characterised by vigour, dedication, and absorption (Schaufeli, Salanova, González-Romá, & Bakker, 2002). The benefits of work-engaged staff in universities result

in higher outputs in terms of creativity and staff members who are energised and willing to work harder, by investing their energy and commitment (Van den Berg, Manias, & Burger, 2008). Engaged employees are driven and succeed in their work tasks, they also handle the demands they face at work well (Schaufeli, Bakker, & Salanova, 2006).

In the presence of uncertain working contexts, organisations need their employees to be more energetic, dedicated and fully engaged in their work, as this has a positive association with individual and organisational performance (Christian, Garza, & Slaughter, 2011; Lu, Wang, Lu, Du, & Bakker, 2014). Based on the work of Schaufeli and other researchers, work engagement of staff in higher education is viewed as necessary. It would mean that while addressing challenges in the higher education sector, employees are still able to have high levels of energy and mental resilience while working (Barkhuizen & Rothmann, 2006; Schaufeli et al., 2002). Researchers found that higher education staff, who is engaged at work, is more willing to invest effort in their work and would be persistent when facing stressful events (Barkhuizen & Rothmann, 2006). Specifically, these researchers found that "work engagement has positive outcomes for both individual well-being and organisational functioning" (Barkhuizen & Rothmann, 2006, p. 38). They furthermore recommend that higher education institutions should attend to the work engagement of their academic staff and target them with interventions to promote work engagement (Barkhuizen & Rothmann, 2006).

During uncertain times where disengagement is at a high, organisations can still create challenging, resourceful workplaces, which would encourage work engagement and indirectly lead to higher job performance (Demerouti & Cropanzano, 2010). While organisations cannot control worldwide events that affect the engagement of employees negatively, they can make the workplace more appealing to employees through solutions that are positive and supportive (Scott, 2017). However, during such challenging times, organisations may prioritise the issues surrounding the world economy, technological advancement and stiff international competition (Bosman, Rothmann, & Buitendach, 2005). They may not be able to meet employees' job demands or provide them with adequate resources (Piccolo & Colquitt, 2006). Organisations must be aware that the experience or feelings associated with job insecurity can sometimes not be avoided, which stresses the importance of focusing on the employee's ability to cope with the harmful effects of job insecurity (De Witte et al., 2015).The job demands-resources model theorises that job

demands, such as job insecurity, decrease work engagement (Bakker & Demerouti, 2007). Research findings by De Cuyper, Bernhard-Oettel, Berntson, De Witte, and Alarco (2008) confirm that job insecurity leads to reduced work engagement, a finding corroborated by Stander and Rothmann (2010) and De Witte et al. (2015). Based on their results, De Witte et al. (2015) explain that job insecurity can lead to the draining of energy, which would mean less vigour and less dedication as part of work engagement. Macey and Schneider (2008) argue that focusing on increasing engagement is an effective organisational strategy to use during uncertain times.

A meta-analysis by Halbesleben (2010) showed that job resources have a positive relationship with work engagement. Those resources can be anything that an employee values, be it energy, conditions, objects or characteristics (Halbesleben, 2010). More research is needed, however, to investigate possible constructs that can buffer the consequences of job insecurity (De Witte et al., 2015) and provide ways to proactively cope with the potential job or job feature loss (Shoss, 2017). Employees who experience insecurity regarding their jobs or valued job characteristics are said to usually do little to decrease their uncertainty (De Witte et al., 2015). However, concerning the transformation agenda, higher education needs employees with psychological capabilities to flourish and to make the higher education sector thrive. Besides, modern universities rely on employees who are psychologically able and willing to invest in their work; employees who will display personal initiative, for instance, when facing disruptions in higher education or participating in said institutional changes (Schaufeli, 2013). A need for more buffers between job insecurity and work engagement of staff in higher education is identified. Thus, this current study sought to explore job crafting as one of the buffers in the relationship between job insecurity and work engagement.

Job crafting, according to Van den Heuvel, Demerouti, Bakker, and Schaufeli (2010), is a strategic advantage during times of change in the workplace. Job crafting "is the physical and cognitive changes individuals make in the task or relational boundaries of their work" (Wrzesniewski & Dutton, 2001, p. 179). It is furthermore characterised as a motivation for employees to redesign and improve their social environment to make their jobs more meaningful and to develop themselves (Lu et al., 2014). Employees who make use of this bottom-up approach by proactively making changes to their working environment stay motivated and display increased work engagement (Bakker, Tims, & Derks, 2012). It may be beneficial that employees partake in job crafting, with organisational support, and proactively

try to align their working conditions to their own needs and abilities to create an engaging work environment (Bakker, Albrecht, & Leiter, 2011).

Vander Elst, Bosman, De Cuyper, Stouten, and De Witte (2013) identified a gap in the literature regarding the understanding of buffers that can be used to deal with the consequences associated with job insecurity to reduced work engagement. Due to limited academic research regarding the moderators of the adverse effects of job insecurity, this study explored the role of job crafting as a variable that could potentially lessen or moderate the negative consequences of job insecurity on work engagement of staff in higher education. This study aimed to investigate the impact that job insecurity has on the work engagement of staff in public higher education institutions, and the potential role of job crafting.

1.3   LITERATURE REVIEW

1.3.1   Job Insecurity

There are various definitions of job insecurity. Greenhalgh and Rosenblatt (2010) described job insecurity as the perception of having no power to continue in a threatened job environment. Sverke et al. (2002) defined job insecurity as a personal experience of anticipating an eventuality of losing one's job. Holm and Hovland (1999) defined job insecurity as a perceived threat of real or anticipated job loss, which results in individuals feeling uncertain about their employment status and the future of their work. Probst (2002) defined job security as a sense of stability and continuance of one's career. According to De Witte (2005, p. 1), the general understanding of job insecurity is that it is a "perceived threat of job loss and the worries related to that threat". Apart from the fear of losing one's job (i.e., quantitative job insecurity), qualitative job insecurity may occur, which is known as being unsure of valued job aspects such as remuneration, working hours, colleagues and content of their job (De Witte, 2005). Similarly, De Witte et al. (2010) describe qualitative job insecurity as a fear of losing valued job aspects that primarily affect work life, such as career possibilities and salary development (Greenhalgh & Rosenblatt, 1984; Hellgren et al., 1999). For this study, the definition of quantitative and qualitative job insecurity comes from De Witte's (2005) conceptualisations. From these definitions, there is a common understanding that job insecurity must be separated from job loss and that job insecurity reflects the subjectively experienced anticipation of a significant and involuntary event (Sverke et al., 2002). Based on the above definitions provided for quantitative and qualitative job insecurity,

employees can perceive their jobs to be unstable or at risk despite any actual objective level of job security (Probst, 2008). Quantitative job insecurity is associated with decreased well-being, although some studies have indicated that this decline in well-being is associated with both quantitative and qualitative job insecurity (De Witte et al., 2010; Hellgren et al., 1999; Reisel & Banai, 2002; Sverke et al., 2002).

Research by Coetzee and De Villiers (2010) indicates that workers rated job insecurity amongst the familiar sources of job stress, which negatively affect the organisational activity and well-being in the workplace. According to Stander and Rothmann (2010), a decrease in work engagement is a corporate concern caused by perceived job insecurity. An employee's experience of job insecurity may result in the organisation facing challenges from a financial perspective because of the costly effects of reduced work engagement.

1.3.2 Work Engagement

Kahn (1990) first provided a theory on personal engagement at work, by describing engaged employees as those who focus their physical, cognitive, and emotional energy on work-related goals. Kahn's work was focused on personal engagement representing a state in which employees bring themselves in when performing their work roles (Christian et al., 2011). Schaufeli et al. (2006, p. 701) built on Kahn's work and defined work engagement as "a positive work-related state of fulfilment that is characterised by vigour, dedication and absorption", which is the definition used in this study. Schaufeli et al.'s (2006) description of work engagement provides a quantitative measure that focuses on the core constructs of vigour, dedication and absorption. Schaufeli et al. (2006) characterise vigour as vitality, mental strength, commitment and resilience in difficult times. Dedication refers to a strong involvement in one's tasks, which provides a sense of significance, enthusiasm, inspiration, pride, and challenge (Schaufeli et al., 2006). Lastly, absorption is characterised by being able to concentrate and being happy with work to a level of not being aware of time; as a result, finding it difficult to detach (Schaufeli et al., 2006).

The antecedents and consequences of work engagement are investigated using the Job Demands-Resources (JD-R) theory (Schaufeli, Shimazu, Hakanen, Salanova, & De Witte, 2017). Schaufeli et al. (2006) referred to work engagement as a positive state of mind, characterised by employees having a sense of energetic and active connection with their work

activities, and a belief that they have resources to manage their job demands (Bakker et al., 2011). According to Demerouti and Bakker (2011), job resources can increase motivation and work engagement when job demands are high. The JD-R model suggests that job resources, for example autonomy, social support, and professional development opportunities are likely to raise the work engagement of individuals (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). Hakanen, Seppälä and Peeters (2017) contributed to the JD-R model by suggesting that job crafting may be efficient in enhancing work engagement under high work demands. That is because job crafting behaviour has the potential to improve job resources. As such, job crafting was identified as a promising technique to buffer the effects of job demands, such as job insecurity, on work engagement (Hakanen et al., 2017).

1.3.3   Job Crafting

The concept of job crafting, according to literature, is mainly drawn from two views. Firstly, job crafting, as defined by Wrzesniewski and Dutton (2001), includes physical and cognitive changes individuals make in their job roles or relational boundaries of their work. Berg, Dutton and Wrzesniewski (2013) distinguish between three types of job crafting. Employees can engage in *task crafting* and, for example, choose to alter tasks that are in their job descriptions by either taking on more responsibilities or dropping assignments, or changing how much time, energy, and attention they invest to different tasks. *Relational crafting* includes employees making changes in how or with whom they interact with at work, for example, building relationships with people in other departments. Employees can also engage in *cognitive crafting,* where they change the way they view their jobs and relationships that make up their jobs, for example, see their work in a way that cultivates meaning and purpose (Berg et al., 2013).

Secondly, Tims and Bakker (2010, p. 4) frame job crafting in the JD-R model and define job crafting as the change employees make in "their level of job demands and job resources to align them with their abilities and preferences". The JD-R theory is used to conceptualise the idea that employees can craft the demanding characteristics of their jobs as well as the type of assistance they can source to handle their work better (Petrou, Demerouti, Peeters, Schaufeli, & Hetland, 2012). From this premise, the crafting of job demands and resources is suggested. Job demands relate to aspects of the job that require physical and psychological (cognitive and emotional) effort or skills (Bakker & Demerouti, 2007). Job resources relate to aspects of

the role that predict personal growth, learning and development, which reduce work demands and the associated physiological and psychological costs (Bakker & Demerouti, 2007). According to this theory, "(1) the employee may increase the level of job resources available at work; (2) the employee may increase the level of job demands at work; (3) the employee may decrease the level of job demands at work" (Tims & Bakker, 2010, p. 4). The JD-R proposes that when individuals are motivated by their work, they would be likely to job craft, and consequently increase their levels of job and personal resources and motivation (Bakker & Demerouti, 2017).

In combining the two perspectives, a three-level hierarchical structure of job crafting is proposed (Zhang & Parker, 2018). The first and highest level differentiates job crafting as either being approach-oriented or avoidance-oriented (*job crafting orientation*). The second level differentiates crafting as either behavioural or cognitive (*job crafting form*). The third level differentiates crafting as either changing job resources or job demands (*job crafting content)* (Zhang & Parker, 2018).

The two dominant views of job crafting formed the starting point for Vanbelle, Van den Broeck, and De Witte (2013) to develop an overarching approach on job crafting. Vanbelle (2017, p. 35) defines job crafting "as the self-initiated changes employees make to their job to optimise their functioning in terms of well-being, attitudes or behaviour", which is the definition adopted in this study. The overarching job crafting scale was developed to allow employees to explore their purpose for crafting and to examine a range of possible changes they can make to their jobs to optimise their functioning, such as creating meaning and work identity, increasing one's person-job fit and well-being and encouraging one's performance (Vanbelle, 2017).

The changing world of work requires that employees craft their jobs, and anticipate and create changes as directed by the increasing uncertainty and strength of the economy (Grant & Parker, 2009). Thus, job crafting as a reflection activity can help employees to cope with ongoing changes by being proactive in adapting to challenges and constraints in their workplace (Petrou et al., 2012). It is essential for employees to individually interpret the specific changes that would be relevant to them by initiating their changes and learning how to make their work more meaningful through job crafting (Tims & Bakker, 2010; Vanbelle, 2017). Mauno, Kinnunen, Mäkikangas and Nätti (2005) emphasise that employees can

counter the fear of job loss or job feature loss by taking individual action to stay motivated, suggesting that this will increase their performance and lead to engagement. Vogt, Hakanen, Brauchli, Jenny, and Bauer (2016) indicate that employee health and well-being can be achieved when employees proactively build a resourceful and challenging work environment for themselves.

Based on the above, this study proposed the following hypothesised model in Figure 1:
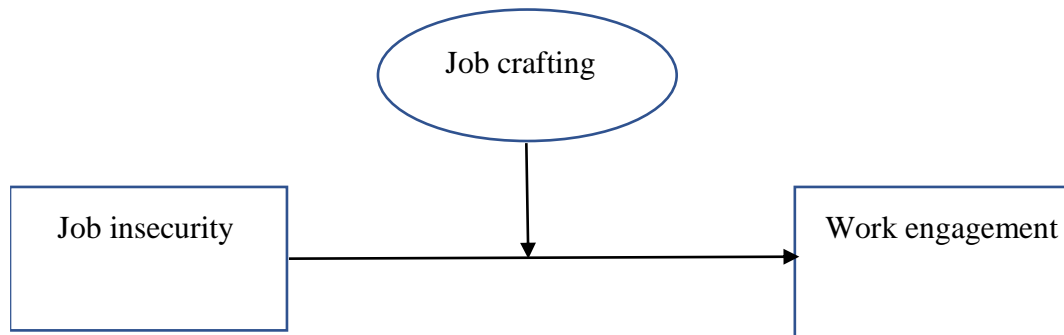
Figure 1: A hypothesized model of job insecurity and work engagement, with job crafting as a buffer

1.4   THE CURRENT STUDY

The primary purpose of this study was to investigate the relationship between job insecurity, work engagement and job crafting of staff in public higher education institutions. Based on the problem statement and the literature review, the following research questions are formulated:

- What is the relationship between job insecurity, work engagement and job crafting according to literature?
- Does quantitative and qualitative job insecurity have a negative relationship with work engagement of staff in public higher education institutions?
- Does job crafting buffer the relationship between quantitative and qualitative job insecurity and work engagement of staff in public higher education institutions?
- What recommendations can be made for future research and practice regarding the relationship between job insecurity, work engagement and job crafting among staff in public higher education institutions?

1.4.1 Research Objectives

1.4.1.1 General Objective

This study aimed to explore the relationship between job insecurity, work engagement and job crafting among staff in public higher education institutions.

1.4.1.2 Specific Objectives

The specific objectives of the study were to:
- Investigate the relationship between job insecurity, work engagement and job crafting according to literature.
- Determine whether quantitative and qualitative job insecurity has a negative relationship with work engagement of staff in public higher education institutions.
- Determine whether job crafting buffers the relationship between quantitative and qualitative job insecurity and work engagement of staff in public higher education institutions.
- Make recommendations for future research and practice regarding the relationship between job insecurity, work engagement and job crafting among staff in public higher education institutions.

1.4.2 Research Hypotheses

The research hypotheses of the study are as follows:

Hypothesis 1: There is a negative relationship between both quantitative and qualitative job insecurity and work engagement among staff in public higher education institutions.

Hypothesis 2a: Job crafting buffers the relationship between quantitative job insecurity and work engagement among staff in public higher education institutions.

Hypothesis 2b: Job crafting buffers the relationship between qualitative job insecurity and work engagement among staff in public higher education institutions.

1.4.3 Research Method

The research method consists of the research design, the participants, the measuring battery, the statistical analysis and the ethical considerations of the study.

1.4.4   Research Design

This study followed a quantitative research approach, specifically a cross-sectional design, which intended to answer questions based on variables that have been measured to explain, predict and control phenomena (De Vos, Strydom, Fouché, & Delport, 2011). A cross-sectional design is a process when data is collected at a single point in time (Creswell & Creswell, 2018). The primary researchers used a survey design to collect data, as it helps researchers answer questions about the relationship between variables (Creswell & Creswell, 2018). A descriptive research design was used to determine the occurrence of a specific problem, and associations of factors within a particular population (De Vos et al., 2011).

1.4.5   Research Participants

This study forms part of an existing job insecurity project. The sample for the proposed research focused on university staff in higher education institutions in South Africa. The total sample size was 1510. The primary researchers of the job insecurity project utilised convenience sampling as they selected based on participant availability and willingness to respond (Gravetter & Forzano, 2009).

1.4.6   Measuring Instruments

The following measuring instruments were used: Job Insecurity Scale, the three-item version of the Utrecht Work Engagement Scale (UWES-3), and the Overarching Job Crafting Scale (OJCS).

1.4.6.1 Job Insecurity Scale (JIS)

Quantitative job insecurity was measured using the Job Insecurity Scale (JIS) developed by De Witte (2000) and validated by Vander Elst, De Witte, and De Cuyper (2014). The quantitative job insecurity subscale consisted of four items, for example, "Chances are, I will soon lose my job". The scale was reliable with a Cronbach's alpha of .73 in the total sample from data collected from five countries (Belgium, Netherlands, Spain, Sweden and the UK) (Vander Elst et al., 2014).

1.4.6.2 Job Insecurity Scale (JIS)

Qualitative Job Insecurity was measured with a four-item scale, tapping into similar aspects as the items of De Witte et al. (2010). Qualitative job insecurity was measured with a four-item scale, for example, "I feel insecure about the characteristics and conditions of my job in the future" and "Chances are, my job will change in a negative way", with a Cronbach's alpha of .87 (De Witte et al., 2010). For both the quantitative and qualitative job insecurity scale, items were rated on a 5-point Likert-type scale, ranging from 1 (strongly disagree) to 5 (strongly agree) (De Witte et al., 2010).

1.4.6.3 Utrecht Work Engagement Scale (UWES-3)

Work Engagement was measured with a three-item version of the UWES, which is called the UWES-3 (Schaufeli et al., 2017). The scale has one item for each of the three constructs: vigour (e.g. "At my work, I feel bursting with energy"), dedication ("I am enthusiastic about my job"), and absorption ("I am immersed in my work"). Participants were asked to rate each item on a 7-point frequency scale ranging from 0 (never) to 6 (always). A study, using five national samples from Finland, Japan, Netherlands, Belgium and Spain found the UWES-3 to be a reliable and valid indicator of work engagement with Cronbach's alphas ranging between .77 and .85 (Schaufeli et al., 2017).

1.4.6.4 Overarching Job Crafting Scale (OJCS)

Job crafting was assessed using four items, e.g. "I make changes in my job to feel better", "I change my job so it would better fit with who I am", "I make changes in my job to perform better", and "I change my job so it would better fit with what I think is important" (Vanbelle, 2017). Responses were given on a Likert-type scale ranging from 1 (totally disagree) to 5 (totally agree). The OJCS was established as a reliable and valid indicator of job crafting over time with Cronbach's alpha exceeding the accepted value of .70 at both Time 1 and Time 2 in a healthcare organisation (Vanbelle, 2017).

1.4.7   Research Procedure

The current study made use of existing data that has already been collected for the job insecurity project in higher education in South Africa. This present study aims to achieve one of the objectives of the project as follows: to examine potential buffers of the negative

relationship between job insecurity and performance/health outcomes. Convenience sampling was used for primary data collection. The researchers of the project approached different universities in South Africa. They requested permission to invite the support and academic staff of these universities to participate in a study on job insecurity in higher education. All participating universities required that the researchers complete their specified ethical clearance. Once the researchers had fulfilled the particular requirements, the data collection process was determined by each institution. Some institutions advertised on their internal platforms; some provided a list of staff members' e-mail addresses to the researchers and permitted them to send e-mail invitations to participate in the study. Other institutions made use of their internal mail service to forward the study invitations. The primary investigators, therefore, adhered to the ethical guidelines provided by each institution when distributing and collecting data.

As approved by the ethics committee of the North West University (NWU), the researchers hired an independent contractor for administering the online questionnaire. The invitation for participation included a link, which lead participants to the informed consent form. Only those who indicated their consent were directed to the actual questionnaire.

One month after the completion of the first survey, participants were invited for the second wave. Another month after the second wave participants were invited for the third and final wave. This study will focus on first-time participants from either wave one, two or three. It is assumed that not all participants completed all three waves. Some participants may have started participating in the second or the third wave, which makes them first-time participants of either wave two or wave three and will, therefore, be used in this current study.

In the first and second week after the initial invitation, prospective participants received friendly reminders. The same procedure regarding reminders was followed for the second and the third wave. Thus, staff members received a total of three e-mails per wave. The e-mails contained a link that allowed participants to unsubscribe from any future e-mails.
For this study, no comparisons between support and academic staff were included in the process of analysing data. This study aims to investigate the relationship between job insecurity, work engagement and job crafting for higher education staff and not to compare groups.

1.4.8 Statistical Analysis

A statistical consultant utilised Mplus version 8.3 (Muthén & Muthén, 1998-2018) and IBM SPSS 25 (IBM Corporation, 2017) to carry out data analysis. In Mplus, the maximum likelihood estimation with robust standard errors (MLR) was used as an estimator to test measurement and structural models. The MLR takes skewness and kurtosis into consideration (Byrne, 2012). Scale reliabilities were computed using composite reliability in Mplus (Muthén & Muthén, 1998-2018).

To evaluate the practical significance of the correlation coefficients, the following cut-off points were used: .30 (medium effect) and .50 (large effect). The statistical significance was interpreted at a value of 95% ($p < 0.05$) or 99% ($p < 0.01$) (Cohen, 1988).

The model's fit to the data was determined by the following parameter estimates and indices (Byrne, 2012): the absolute fit indices included chi-square (X^2), degrees of freedom (*df*), and root mean square error of approximation (RMSEA). The incremental fit indices include the Tucker-Lewis Index (TLI), as well as the Comparative Fit Index (CFI). The CFI and TLI have cut-off points of .90, with higher values being acceptable. RMSEA and standardised root mean square residual (SRMR) values of .08 and lower indicated an adequate fit between the hypothesised model and the data. Also, Akaike information criterion (AIC), Bayesian information criterion (BIC), and sample size adjusted BIC (ABIC) values were reported although measurement models were not compared (Kline, 2010). Hayes' (2012) PROCESS macro was used to test for moderation.

1.5 ETHICAL CONSIDERATIONS

Before the commencement of this current study, ethical clearance was obtained from the Economic and Management Sciences Research Ethics Committee (EMS-REC) of the North-West University (Ethics number: NWU-HS-2016-0207). In terms of ethical guidelines, voluntary participation, informed consent, confidentiality and anonymity were considered. Primary researchers ensured that informed consent was obtained at the beginning of the survey and participants were informed about their right to withdraw at any time without any consequences. The primary researchers took reasonable steps to avoid harming their research participants. Anonymity and confidentiality were also ensured as the primary researchers hired an independent contractor for data collection. Participants could opt to enter their e-mail

addresses (handled by the independent contractor for anonymity) to win one of six cash prizes of R5,000.Participants who completed all three waves also received a guaranteed R100 shopping coupon for Woolworths as a token of appreciation for their time. This reward is approved in the original ethics application for the job insecurity project, through which the primary data was collected.

The data that was used in this current study was treated as confidential and reasonable precautions were taken to protect confidential information. The competence of the researcher analysing the data was ensured, and the security of the data was maintained by restricting data only to researchers.

1.6   EXPECTED CONTRIBUTION OF THE STUDY

1.6.1   Contributions for the Individual

The findings of this study will be valuable in creating awareness amongst individuals of the potential role that job crafting plays in the relationship between job insecurity and work engagement. Job crafting is a useful individual strategy that enhances ones' functioning and therefore, also benefits the organisation (Vanbelle, Van den Broeck, & De Witte, 2017).

1.6.2   Contributions to the Organisation

Public higher education institutions in South Africa face the challenge of positioning themselves to produce highly trained people who are equipped to address the needs of disruptions in this technologically oriented economy and rapidly changing competitive global work context. The expectation remains the same despite budget cuts, short-term contracts and other restructuring policies that came into effect. Human resource managers and practitioners in higher education institutions can benefit from being aware of how job crafting can act as a strategy to assist employees in dealing with the fear of losing their jobs or job features and as a result, improve their work engagement. Research on work engagement suggests benefits for individuals, such as better mental health, physical health and positive work to home enrichment experiences. For the organisation, work engagement is beneficial for employee performance (Hakanen, Ropponen, Schaufeli, & De Witte, 2019).

1.6.3   Contribution to Industrial/Organisational Psychology Literature

Vander Elst et al. (2013) stated that there is a gap in the literature regarding the understanding of buffers that can reduce the harmful effects of job insecurity and the gap has still not been closed. In addition, the relationship between job insecurity and work engagement of university staff with the role of job crafting has not received much attention. This study could contribute to the aim of the existing South African Job Insecurity project at North-West University, which seeks to identify buffers to prevent or lower the negative effects of job insecurity.

1.7   CHAPTER DIVISION

The following chapters are outlined according to the layout of this mini-dissertation:

Chapter 1: Introduction, problem statement, research objectives, research design, and research methodology.

Chapter 2: Research Article.

Chapter 3: Conclusion, limitations, and recommendations.

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CHAPTER 2: RESEARCH ARTICLE

Job insecurity and work engagement of staff in higher education: The role of job crafting.

ABSTRACT

Orientation: Although job insecurity has been researched extensively in other sectors, little emphasis has been given to its impact in higher education institutions in South Africa, especially its effects on work engagement of staff in public higher education institutions. Furthermore, a gap exists in how the negative consequences of job insecurity can be buffered.

Research purpose: The study aims to explore the relationship between job insecurity, work engagement and job crafting among staff in public higher education institutions.

The motivation for the study: Exploring the role of job crafting as a variable that can potentially buffer the negative consequences of job insecurity on the work engagement of staff in public higher education institutions.

Research design, approach and method: A cross-sectional research design was used in this study. The sample of the study was employees working in public higher education institutions in South Africa ($N = 857$).

Main findings: Job insecurity showed a negative relationship with work engagement. Job crafting buffered the relationship between qualitative job insecurity and work engagement. Job crafting was found to buffer the negative impact that job insecurity has on work engagement at low and mean levels of job crafting, although not at high levels of job crafting.

Practical/managerial implications: The findings can give managers insight into the impact of job insecurity on work engagement. Also, managers can encourage employees to cope with the adverse effects of job insecurity on work engagement by using job crafting.

Contribution/value-add: The study contributes to job insecurity literature, especially within the context of the South African higher education sector. Furthermore, the study adds to the

literature by suggesting the buffering effect of job crafting on the relationship between job insecurity and work engagement of employees in these institutions.

Key words: Job insecurity, work engagement, university staff, academic staff, support staff, public higher education institutions, higher education, moderation, buffer, job crafting, South Africa

INTRODUCTION

Worldwide, expectations from higher education institutions are high (Schendel, 2019). University degrees are viewed by society as a means to increase social mobility and governments expect social and economic returns from an increase in numbers of university graduates (Schendel, 2019). Similarly, South African public higher education institutions are viewed as playing an essential role in the social and economic development of the country (Pouris & Inglesi-Lotz, 2014). This role is through "the formation of human capital, the building of knowledge bases (primarily through research and knowledge development), the dissemination and use of knowledge (primarily through interactions with knowledge users) and the maintenance of knowledge (inter-generational storage and transmission of knowledge)" (Pouris & Inglesi-Lotz, 2014, p. 1).

In the apartheid era, a system based on race, social class and political power favoured the most privileged group, being whites, Indians and Coloureds less so, and Africans were the most underprivileged politically and economically (Leibowitz & Bozalek, 2014). Better resourced institutions typically belonged to the white communities, while black South Africans accessed different and less-resourced institutions as that of their white counterparts (Swartz, Ivancheva, Czerniewicz, & Morris, 2018).

Since 1994, the transformation agenda of South Africa led to higher education institutions in the country undergoing dramatic changes. For example, academic restructuring increased student enrolments, and strategic planning to remedy the issues of inequality and challenges resulting from the apartheid era (Council on Higher Education [CHE], 2016; Setati, 2014; Swartz et al., 2018). During 2015 and 2016, universities in South Africa experienced the highest and most violent levels of student protests in higher education in the last century, with most analysts ascribing these protests to the colonial institutional culture and the discriminatory costs of higher education (Jansen & Walters, 2019). These protests brought to light critical issues of financial access and post-apartheid racial inclusion in universities (Badat, 2015).

Challenges still faced by South African higher education institutions are linked to the broader problems experienced in South Africa, which are, among others, weak economic growth, high youth unemployment and the political crisis surrounding the ANC leadership and government (Tjønneland, 2017). Furthermore, South African higher education institutions are

characterised by being accessible to the elite, creating unequal access, as well as black students having lower success rates in graduations and completing undergraduate degrees in the minimum time (CHE, 2016; Swartz et al., 2018). Financing is another major challenge that has dominated the debate (Tjønneland, 2017). Inadequate funding from the state adds to the economic dimension of the crisis of higher education (Badat, 2015). Higher education institutions make up for the shortfall in state funding by increasing tuition fees, seeking third-stream income and implementing strategies such as outsourcing to reduce costs (Badat, 2015). It means higher education is becoming unaffordable to the general South African population (Swartz et al., 2018). According to Jansen and Walters (2019), although most of the South African institutions appear to have stabilised following the 2015-2016 protests, it remains to be seen whether the country's 26 public higher education institutions will be able to rebuild and maintain their social, intellectual and cultural capabilities.

As noted by Schendel (2019), South Africa is not unique in its experiences of the consequences of exclusionary higher education practices, nor with attempts to deal with unequal entry to, experiences within and success rates of students in higher education. What is, however, unique, over and above the usually expected social and economic returns, is the emphasis placed on higher education within the South African reconciliation and transformation agenda (Schendel, 2019). This emphasis has resulted in a literature focus on higher education as a possible transformative space and the expectation of South African universities to be active role players in the transformation of society after decades of being involved in the apartheid system (Schendel, 2019). Although the South African government developed strategies of restructuring the higher education system to address equity, human rights, democracy and sustainable development, the plan fell short of addressing the challenges they were set to overcome (Karodia, Shaikh, & Soni, 2015). The rise in student protests confirms the shortcomings and failures of the transformation agenda of the higher education system in the country (Carolin, 2018; Tjønneland, 2017)

Much as the student protests materialised the challenges facing higher education, they leave behind serious consequences, some of which include repairing and rebuilding the physical damage to university property (Jansen & Walters, 2019). More concerning, however, is the long-term psychological and emotional trauma that the student protest might have caused, as well as a perception of unsafe places of teaching and learning (Jansen & Walters, 2019). According to a study conducted at Stellenbosch University, lecturers noted that the student

protests affected the relationship between lecturers and students in different ways (Constandius et al., 2018). A general reaction to the protests has been described as "uncertainty, anxiety and powerlessness, togetherness and care, and a need for change" (Constandius et al., 2018, p. 74). The impact of the changes and challenges faced by public higher education institutions in the country cannot be accurately predicted (Constandius et al., 2018). These changes are, however, said to affect many aspects within the higher education environment, including the careers and job satisfaction of employees in higher education (Dorasamy & Letooane, 2015).

Organisational transformation and merger processes are often viewed as a solution for transformation plans to be realised (Tjønneland, 2017). However, according to Karodia et al. (2015), mergers have caused unfavourable conditions for staff members, such as dissatisfaction with salary levels, poor working conditions, migration of academics to private institutions or international countries, which, as a result, has led to a drop in academic standards and quality. While universities have the responsibility of creating a competitive workforce, mergers have caused fear and uncertainty in the higher education sector (Karodia et al., 2015). The transformation agenda has resulted in job insecurity, causing it to be a pivotal aspect to be addressed in higher education (Setati, 2014).

As far back as 2009, Viljoen and Rothmann (2009) expressed concern regarding job insecurity harming the health of academic staff in university institutions in the country. It is because job insecurity, as a significant job stressor, is a chronic stressful situation that could have even more severe consequences when compared to someone who loses his or her job (Lee, Huang, & Ashford, 2018). Research has characterised job insecurity as a stressor which results in critical adverse outcomes for both employees and employers (Cheng & Chan, 2008; Sverke, Hellgren & Näswell, 2002).

Barkhuizen and Rothmann (2006) previously cautioned that organisations should focus on employees' work engagement during uncertain times, as work engagement has benefits for employees' well-being and functioning of the organisation. Work engagement is said to be a good predictor of employee, team and organisational issues, focusing on work engagement, therefore, has value for higher education institutions (Bakker & Albrecht, 2018). Higher education institutions should prioritise the work engagement (vigour, dedication and absorption) of their staff by measuring and implementing interventions to promote work

engagement (Barkhuizen & Rothmann, 2006). Engaged employees tend to be more open to new experiences; they can be more creative and more likely to innovate (Gawke, Gorgievski & Bakker, 2017; Orth & Volmer, 2017).

The job demands-resources (JD-R) theory has been used to explain work engagement. The theory suggests that job resources are positively associated with work engagement, and that hindrance job demands (i.e. job insecurity) can weaken the positive relationship between job resources and engagement (Bakker & Albrecht, 2018).

Little evidence is available on how employees can reduce the harmful effects of job insecurity. Previous research contributed to the literature of job insecurity by identifying personality variables, such as having an internal locus of control, as one way in which to experience less negative reactions to job insecurity (Ashford, Lee, & Bobko, 1989; König, Debus, Häusler, Lendenmann, & Kleinmann, 2010). Furthermore, demographic factors, such as job tenure, age, gender and education, were investigated in terms of how they may influence individual's reactions to or experience of job insecurity (Cheng & Chan, 2008). The study found that tenure and age moderated the relationship between job insecurity and its health-related outcomes; however, gender was not found to be a moderator (Cheng & Chan, 2008). Scholars have also investigated the role that employment contracts and employability can play in helping employees cope with job insecurity (De Cuyper, Notelaers, & De Witte, 2009; Silla, De Cuyper, Gracia, Peiró, & De Witte, 2009). These researchers found mixed results, showing that employability-like indicators may not moderate the negative effects of job insecurity on all outcomes (Silla et al., 2009). The results showed that job insecurity was negatively related to work outcomes (job satisfaction and organisational commitment), both in permanent and temporary agency workers (Silla et al., 2009).

In this current study, job crafting is proposed as a possible buffer in the relationship between job insecurity and work engagement. According to Tims, Bakker and Derks (2012), job crafting is a simplified bottom-up approach that employees can use to increase levels of work engagement. Job crafting is a term used to describe the behaviour in which employees change the design of their jobs to create more meaning in their jobs (Wrzesniewski & Dutton, 2001). Tims and Bakker (2010) define job crafting using the JD-R theory and explain it as a self-initiated change that individuals make to their job demands and job resources, making use of

their abilities and needs. In the presence of job demands such as job insecurity, four types of job crafting validated by Tims et al. (2012) could be utilised by employees as a resource for making relevant changes. The four dimensions are (1) increasing structural job resources, (2) increasing social job resources, (3) increasing challenging job demands, (4) decreasing hindering job demands (Tims et al., 2012). Furthermore, their research established that employees who changed their job characteristics by utilising the four types of job crafting, reported higher levels of work engagement than employees who did not craft (Tims, Bakker, & Derks, 2015). Through job crafting, employees can proactively change job characteristics like job demands, and create a work environment characterised by job resources and challenging job demands, to feel better, and as a result increase their work engagement and job satisfaction (Tims, Bakker, & Derks, 2013).

In the organisation, job crafting is an approach that employers can encourage employees to use to improve their working conditions, by making their jobs more meaningful, remaining engaged and finding satisfaction in what they do (Demerouti, 2014). On this premise, job crafting may buffer the relationship between job insecurity and work engagement of staff in public higher education institutions.

LITERATURE REVIEW

Job Insecurity

Job insecurity is said to remain a predominant employment issue considering the ongoing changes in the workplace (Lee et al., 2018). Job insecurity has received a considerable amount of research attention over the years, and research on this concept will continue to grow in its importance and relevance (Greenhalgh & Rosenblatt, 2010; Lee et al., 2018; Sverke et al., 2002). Greenhalgh and Rosenblatt (1984, p. 438) first conceptualised the phenomenon in 1984. These researchers define job insecurity as the "perceived powerlessness to maintain desired continuity in a threatened job situation". More recently, job insecurity is defined as "a perceived threat to the continuity and stability of employment as it is currently experienced" (Shoss, 2017, p. 7). According to Klandermans and Van Vuuren (1999), the critical dimensions of job insecurity are the concern over job loss, the concern over losing important job features, and the probability and severity of such losses. As such, scholars distinguish between quantitative and qualitative job insecurity (De Witte, De Cuyper, Vander Elst, Vanbelle, & Niesen, 2012; Hellgren, Sverke, & Isaksson, 1999). Quantitative job insecurity is defined as "the continuity (or loss) of the job itself: People are uncertain about whether they will be able to retain their actual job or become unemployed"

(De Witte, 2005, p. 2). Qualitative job insecurity refers to "insecurity regarding the continued existence of valued aspects of the job, such as pay, working hours, colleagues and the job content (e.g. autonomy, responsibility)" (De Witte, 2005, p. 2).

Job insecurity is characterised as a psychological phenomenon (Schaufeli, 2016) and a subjective perception (De Witte et al., 2012), implying that employees in the same circumstances may differ in their experience of job insecurity. (Klandermans & Van Vuuren, 1999). Some employees may feel secure about their jobs, while others in the same objective situation may actively perceive the possibility of losing their jobs (De Witte et al., 2012; De Witte, Pienaar, & De Cuyper, 2016; Probst, 2008). Job insecurity suggests feelings of helplessness which leave insecure employees not knowing what an appropriate reaction should be (De Witte, 2005; De Witte et al., 2012).

Job insecurity has been classified as a work stressor, in that employment is a significant aspect of the individual's personal, social and economic life (Giunchi, Emanuel, Chambel, & Ghislieri, 2016). As such, job insecurity is burdening and causes strain because of the prolonged uncertainty of one's job (De Witte, 1999; Joelson & Wahlquist, 1987). This strain stems from two factors: uncontrollability and unpredictability. Uncontrollability implies a sense of powerlessness: employees perceiving a few options on how they can be in control of the situation (De Cuyper et al., 2009; De Witte, 1999). Unpredictability manifests itself in a sense that one is unclear of what will happen in the future (De Cuyper et al., 2009; De Witte, 1999; Joelson & Wahlquist, 1987).

De Witte et al. (2016) wrote an updated review of 30 years of longitudinal studies on the impact of job insecurity on health and well-being. The analysis reported empirical evidence that job insecurity acts as a job stressor that causes negative effects (De Witte et al., 2016; Schaufeli, 2016). The adverse effects that job insecurity has on employee's well-being, such as job satisfaction and general health, also have an impact on the organisation's effectiveness (Cheng, Mauno, & Lee, 2014; De Witte et al., 2010; Guarnaccia, Scrima, Civilleri, & Salerno, 2018). Job insecurity, if unidentified for long periods, may lead to outcomes such as absenteeism that affect the organisation's effectiveness (Dachapalli & Parumasur, 2012). Job insecurity has also been explained as a job demand (Schaufeli & Taris, 2014). According to the Job Demands-Resources (JD-R) model, job demands are negatively related to work engagement (Schaufeli, Shimazu, Hakanen, Salanova, & De Witte, 2017). It is assumed that

when a job demand, such as job insecurity, is high, work engagement would decrease. In their study, Cheng et al. (2014) found that job insecurity predicted reduced vigour over time. Vigour is one of the dimensions of measuring work engagement (Schaufeli et al., 2017). More results supported evidence that showed that job insecurity predicted lower vigour at work (Kinnunen, Mauno, & Siltaloppi, 2010; Mauno, Kinnunen, & Ruokolainnen, 2007). Additionally, job insecurity can be energy-draining, which relates to vigour, and seems to negatively affect the level at which employees identify with their work, which, in turn, refers to dedication as part of work engagement (De Witte, Vander Elst, & De Cuyper, 2015).

Work engagement
Work engagement is an essential aspect for organisations on which to focus, in that it predicts valuable employee, team and organisational outcomes (Bakker & Albrecht, 2018). Having engaged employees has been linked with increased levels of innovation, performance in roles, client satisfaction and organisational citizenship behaviour (Bakker, Demerouti, & Sanz-Vergel, 2014). With increased attention being given to positive psychology, work engagement makes up one of the positive states considered to be the positive antithesis of burnout (Maslach, Schaufeli, & Leiter, 2001; Schaufeli, Bakker, & Salanova, 2006). According to this school of thought, engaged employees are those who have a sense of energetic and active connection with their work and look upon their profession as challenging (Schaufeli & Bakker, 2010).

Kahn (1990), being the first to conceptualise work engagement, referred to it as how employees employ and express themselves physically, cognitively, and emotionally with their work roles. Work engagement can, therefore, be described as the behaviour of employees putting in a lot of effort into their work because they connect and identify with it (Kahn, 1990). For this study, work engagement is defined as "a positive, fulfilling, work-related state of mind that is characterised by vigor, dedication, and absorption" (Schaufeli, Salanova, González-Romá, & Bakker, 2002, p. 74). Contrary to a specific emotional state, work engagement is a persistent and pervasive affective-cognitive state (Bakker & Schaufeli, 2014). As indicated in the definition, work engagement has three components or dimensions. The first is vigour, which is high activation, meaning significantly high energy and cognitive resilience during work, as well as the determination to invest effort in one's work, and persistence in the face of challenges. (Bakker & Schaufeli, 2014). Second is dedication, which means intensified levels of identifying or being involved in one's work, and

experiencing a sense of importance, enthusiasm, inspiration, pride and feeling challenged by the work. (Tims, Bakker, & Derks, 2013). The third is absorption, which is characterised by being fully concentrated and happily immersed in one's work that time seems to pass quickly, and one has difficulties with detaching oneself from work (Bakker & Schaufeli, 2014; Schaufeli et al., 2002).

Work engagement is an important aspect to pay attention to because on an individual level; engaged individuals are said to increase their personal growth and development, while on an organisational level, organisations improve their performance quality (Bakker & Schaufeli, 2014). Work engagement is an individual-level construct generally measured at the organisational level (Shuck & Wollard, 2010). Since the literature on work engagement considers the consequences of work engagement, the antecedents of work engagement matter in understanding the benefits that organisations can reap from an engaged workforce (Wollard & Shuck, 2011). The antecedents of work engagement are defined as "constructs, strategies, or conditions that precede the development of employee engagement, and that come before an organisation or manager reaps the benefits of engagement-related outputs (e.g. higher levels of productivity, lower levels of turnover)" (Wollard & Shuck, 2011, p. 432). The antecedents are identified on two levels: individual antecedents are those constructs, strategies and conditions that can be applied directly to or by employees themselves, for example job satisfaction, commitment and job involvement. Organisational-level antecedents are those constructs, strategies and conditions that can be applied across an organisation, for instance perception of workplace safety, supportive organisational culture and positive workplace climate (Wollard & Shuck, 2011).

The Job Demands-Resources (JD-R) theory is a theoretical framework that has been used to explain the antecedents and consequences of work engagement (Schaufeli et al., 2017). The JD-R theory assumes that every work context is characterised by job demands and job resources (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001b). Thus, the model can be applied to different occupational settings with demands or resources relevant to that work context (Bakker & Demerouti, 2007). Job demands may be challenge demands such as mental demands, or it could be hindrance demands such as job insecurity, which are negatively related to work engagement (Schaufeli et al., 2017).

Job resources, on the other hand, strongly influence work engagement (Schaufeli & Bakker, 2004). Job resources refer to the willingness of employees to invest their efforts and abilities to the work task and, in turn, increase their work engagement (Schaufeli et al., 2017). An increase in job resources can play a decisive role in employees' managing or coping with the negative effects of job insecurity.

The JD-R model linked the improvement of work engagement with job resources such as autonomy, development opportunities and social support (Bakker et al., 2014; Demerouti, Bakker, De Jonge, Janssen, & Schaufeli, 2001a). Previous research studies have shown top-down initiatives, that different job resources can buffer the negative effects of job demands on reduced work engagement (Hakanen, Seppälä, & Peeters, 2017). However, little is known about what employees can do for themselves to create a better fit with their job demands and resources (Hakanen et al., 2017). Job crafting is a bottom-up approach that employees can utilise to increase their levels of work engagement (Bakker & Albrecht, 2018; Demerouti, 2014).

Job crafting

Job crafting is linked with positive outcomes, as such, job crafting is positively associated with work engagement (Oprea & Iliescu, 2015). It means that employees might be able to increase their work engagement by job crafting (Bakker, Oerlemans, & Ten Brummelhuis, 2013). To improve work engagement, employees can carry out self-initiated changes known as job crafting (Tims et al., 2012). The literature on job crafting draws on two views:

On the one hand, Wrzesniewski and Dutton (2001) define job crafting using three types of job crafting (task crafting, relational crafting and cognitive crafting), while Tims and Bakker (2010) frame job crafting within the JD-R model. Although these two main views are different, they define job crafting using specific ways in which individuals can craft their jobs (Vanbelle, 2017). According to Wrzesniewski and Dutton (2001), job crafting is defined as the actions employees take to shape, mould, and redefine their jobs. These changes take four different forms. Firstly, task crafting is the extent to which employees make changes to the number, scope, or type of job tasks in their work, as opposed to their prescribed job description (Bakker & Demerouti, 2007; Tims, Bakker, & Derks 2014). In one study, teachers changed their classrooms and how tasks were completed (Peral & Geldenhuys, 2016). Secondly, relational crafting means the changes employees make in how they relate or

interact with others at work (Berg, Dutton, & Wrzesniewski, 2008; Tims et al., 2014). For example, lecturers may choose to socialise with staff who teach similar subjects, and through that interaction, they may become more confident in their role. This example is identical to the case provided on how teachers crafted relationships at school by building relationships with other teachers who teach the same subject (Peral & Geldenhuys, 2016). Thirdly, cognitive crafting refers to the change's employees make in how they view their jobs (Wrzesniewski & Dutton, 2001). Even though the task may not change, individuals adapt how they see their work conditions to fit their needs, abilities and preferences (Tims & Bakker, 2010). For example, in Berg et al.'s (2008) study, a hospital cleaner viewed her work as more than just cleaning, but instead, helping people.

Furthermore, another essential form of job crafting has been developed that refers to the self-initiated efforts that employees employ to change their skills at work to carry out their jobs efficiently (Wrzesniewski, Berg, Grant, Kurkoski, & Welle, 2012). It refers to a bottom-up approach to job redesign in which individuals take an active role to customize their job and optimise their functioning (Wrzesniewski & Dutton, 2001). Research adopting this approach defines job crafting in terms of role-based perspective, referring to employees' work roles and the changes they make within the boundaries and conditions of job tasks, relational and cognitive domains of their work (Bruning & Campion, 2018; Wrzesniewski & Dutton, 2001).

Job crafting has also been explained using a resource-based perspective which draws on the job demands-resources theory (Demerouti et al., 2001b). This approach defines job crafting as the changes that individuals proactively make to balance their job demands and seek job resources according to their abilities and needs (Tims & Bakker, 2010). According to the JD-R model, Tims et al. (2012, p. 174) propose that "job crafting consists of three conceptually different dimensions, namely: (1) increasing job resources; (2) increasing challenging job demands; and (3) decreasing hindering job demands". Research on the JD-R model has shown that job resources can buffer the negative effects of job demands, thus fostering work engagement, implying that work engagement may be an essential outcome of job crafting (Tims et al., 2012).

This definition is the starting point or the basis of a new overarching definition of job crafting (Vanbelle, 2017). According to Vanbelle, Van den Broeck and De Witte (2013), job crafting is defined as individuals proactively changing their jobs to optimize their functioning in terms

of well-being, work-related attitudes and behaviour. This definition accounts for multiple reasons to craft and takes on a broader approach to crafting without limiting crafters to specific predetermined ways of crafting (Vanbelle, 2017). This current study takes on this approach of job crafting that contributes to the literature in three ways.

First, the new overarching job crafting scale does not pre-determine the types of changes employees can make when they job craft, as seen in Wrzesniewski and Dutton (2001) and Tims et al. (2012). This measurement of job crafting allows employees to determine the possible changes that they might make to their jobs to optimize their functioning (Vanbelle, 2017). This definition suggests that in a context where employees experience job insecurity, they have room to interpret which changes they may make personally that would be relevant to them (Vanbelle, 2017). Secondly, it takes purpose for crafting into account. It argues that self-serving use of job crafting is an essential element as job crafting is characterised by being a change-oriented and goal-directed, proactive behaviour (Grant & Parker, 2009, Tims & Bakker, 2010; Vanbelle, 2017). Thirdly, the overarching approach of job crafting associates with the various types of job crafting described in an array of studies, which enables the study of job crafting as a general concept, as well as its mechanisms (Vanbelle, De Cuyper, Baillien, Niesen, & De Witte, 2016; Vanbelle, Van den Broeck, & De Witte, 2017).

Studies have indicated positive outcomes of job crafting. According to Rudolph, Katz, Lavigne, and Zacher (2017), job crafting yielded positive results to job satisfaction, work engagement, self and other-rated work performance, and contextual performance. Also, results were found that supported the importance of crafting in the teaching profession, as it was found that a positive relationship exists between job crafting and work engagement amongst South African high school teachers (Peral & Geldenhuys, 2016). Although the overarching scale of job crafting is new, Vanbelle et al. (2017) found that employees who job craft adapt to their jobs to meet their expectations and preferences which might, as a result, lead to positive outcomes, such as increased willingness to continue working. Job crafting is proposed as a valuable individual strategy and is associated with positive outcomes. Thus, it is expected that job crafting can be used by staff in public higher education institutions as a buffer for the negative effects that job insecurity has on their levels of work engagement.

RESEARCH DESIGN

Research approach

This study used a quantitative research approach to achieve its research objectives. Data was gathered utilising questionnaires on job insecurity (quantitative and qualitative), work engagement and job crafting of staff members in public higher education institutions. A cross-sectional survey design was followed where data was collected from participants at a single point in time (Creswell & Creswell, 2018).

Research participants

A total of 857 questionnaires were completed satisfactorily from different public higher education institutions in South Africa. Biographical and employee-related characteristics of the participants are reported in Table 1. There were 53.7% male participants, 45.6% female participants and 0.7% of the participants chose the category 'other'. Most participants fell within the categories of 41-50 years (26.5%) and 31-40 years (26.1%). The majority of participants had a Bachelor's, Honours degree, or a technical university degree (36.3%). Participants' citizenship was 95% South African, with 5% indicating other citizenship or not preferring to say. A higher percentage of participants were employed at the university for less than ten years (58.1%), while a low rate of 3.3% has been employed at the University for 30 years or more. Regarding job category, 25.6% indicated that they were office employees and 47% categorised themselves as professional workers. Of the total, 56.8% stated that they were support staff, while 43.2% indicated that they were academic staff. Most participants were employed full-time (84.4%), while 15.6% stated that they were employed on a part-time, contract basis. Of all the participants, 44.9% indicated that they worked between 21-40 hours per week and 35.2% stated that they worked 41-60 hours per week.

Table 1: Characteristics of the participants *(n = 857)*

Item	Category	Frequency	Percentage
Gender	Male	388	53.7
	Female	329	45.6
	Other	5	0.7
Age group	Up to 20 years	15	1.8
	21-30 years	182	21.2
	31-40 years	224	26.1
	41-50 years	227	26.5
	51-60 years	161	18.8
	61-70 years	47	5.5
	Above 70 years	1	0.1
Highest education	Standard 8/Grade 10 or lower	4	0.1
	Standard 9/Grade 11	4	0.5
	Standard 10/Grade 12	67	7.8
	Diploma, Postgraduate diploma	103	12.0
	Bachelor degree, Honours degree, B.Tech	311	36.3
	Master's degree	206	24.1
	Doctoral degree or other equivalent	161	18.8
Citizenship	South African	725	95.0
	Other	37	4.8
	Prefer not to say	1	0.1
Tenure at university	Less than 10 years	498	58.1
	10-19 years	194	22.6
	20-20 years	137	16.0
	30 years or more	28	3.3
Job category	Elementary occupation	21	2.5
	Office worker	219	25.6
	Technician/Associate professional/ Student	103	12.0
	Professional	403	47.0
	Senior official/Manager/Chancellor/ Dean, etc.	111	13.0
Position	Academic staff	370	43.2
	Support staff	487	56.8
Type of contract	Full-time	707	84.4
	Part-time	131	15.6
Part-time hours per week (number of hours for part-time workers)	0-20 hours	87	95.3
	21-40 hours	29	3.4
	41-60 hours	6	0.7
	61-80 hours	3	0.4
	81-100 hours	1	0.1
	101-120 hours	1	0.1
Total work hours per week (across all jobs)	0-20 hours	134	15.6
	21-40 hours	385	44.9
	41-60 hours	302	35.2
	61-80 hours	25	2.9
	81-100 hours	6	0.7
	101-120 hours	3	0.4
	120+ hours	2	0.2

Measuring Instruments

The following measuring instruments were used in the empirical study:

Job Insecurity Scale (JIS). Quantitative job insecurity was measured using the Job Insecurity Scale (JIS) developed by De Witte (2000). The quantitative job insecurity subscale consists of four items scored on a 5-point scale, ranging from 1 (strongly disagree) to 5 (strongly agree) (De Witte et al., 2010). A sample item of the scale includes: "Chances are, I will soon lose my job". The total sample from data collected from five countries demonstrated reliability with a Cronbach's alpha of .73 (Vander Elst et al., 2016).

Job Insecurity Scale (JIS). Qualitative Job Insecurity was measured with a four-item scale, tapping into similar aspects as the items of De Witte et al. (2010). The qualitative job insecurity subscale consists of four items, which were rated on a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree) (De Witte et al., 2010). A sample item of the scale includes: "I feel insecure about the characteristics and conditions of my job in the future". The scale is reliable with a Cronbach's alpha of .87 (De Witte et al., 2010).

Work engagement. Work engagement was measured using the Utrecht Work Engagement Scale UWES-3 (Schaufeli et al., 2017). The UWES-3 consists of one item for each construct: vigour (e.g., "At my work, I feel bursting with energy"), dedication ("I am enthusiastic about my job") and absorption ("I am immersed in my work"). The items were rated on a 7-point frequency scale ranging from 0 (never) to 6 (always). The UWES-3 showed reliability with Cronbach's alpha ranging between .77 and .85 (Schaufeli et al., 2017).

Job crafting. Job crafting was measured using the Overarching Job Crafting Scale (OJCS) (Vanbelle, 2017). The OJCS consists of four items which are rated on a 5-point scale ranging from 1 (totally disagree) to 5 (totally agree). A sample item includes: "I make changes to my job to feel better". The scale is a reliable and valid indicator of job crafting with Cronbach's alpha exceeding .70 (Vanbelle, 2017).

Research procedure

Ethical approval for this study was obtained from the North-West University's Ethics Committee (NWU-00812-19-A4) on 30 August 2019. Data was collected as part of a larger project focusing on job insecurity in South African higher education institutions. The primary

investigators adhered to the ethical guidelines provided by each institution when distributing questionnaires and collecting data. As approved by the ethics committee of the North-West University, the researchers hired an independent contractor for administering the online questionnaire. The invitation for participation included a link, which led participants to the informed consent form. Only those who indicated their consent were directed to the actual questionnaire. Participation in the survey was voluntary, and participants could withdraw at any time.

The primary researchers collected data in three waves. One month after the completion of the first survey, participants were invited for the second wave. Another month after the second wave participants were invited for the third and final wave. This study focused on data collected from first-time participants from either wave one, two or three. It is assumed that not all participants completed all three waves. Therefore, some participants may have started participating in the second or the third wave, which makes them first-time participants of either wave two or wave three.

Statistical Analysis

Data analysis was conducted by a statistical consultant who utilised Mplus version 8.3 (Muthén & Muthén, 1998-2018) and IBM SPSS 25 (IBM Corporation, 2017) to carry out the analysis. In Mplus, the maximum likelihood estimation with robust standard errors (MLR) was used as an estimator to test measurement and structural models. The MLR takes skewness and kurtosis into consideration (Byrne, 2012). Scale reliabilities were computed using composite reliability in Mplus (Muthén & Muthén, 1998-2018). To test the practical significance of the correlation coefficients, the following cut-off points were used: 30 (medium effect) and .50 (large effect). The statistical significance was interpreted at a value of 95% ($p < 0.05$) or 99% ($p < 0.01$) (Cohen, 1988).

The model's fit to the data was determined by the following parameter estimates and indices (Byrne, 2012): The absolute fit indices included chi-square (χ^2), degrees of freedom (*df*), and root mean square error of approximation (RMSEA). The incremental fit indices include the Tucker-Lewis Index (TLI), as well as the Comparative Fit Index (CFI). The CFI and TLI have cut-off points of .90, with higher values being acceptable. RMSEA and standardized root mean square residual (SRMR) values of .08 and lower indicated acceptable fit between the hypothesised model and the data. Also, Akaike information criterion (AIC), Bayesian

information criterion (BIC), and sample size adjusted BIC (ABIC) values were reported, although measurement models were not compared (Kline, 2010). Hayes' (2012) PROCESS macro was used to test for moderation.

RESULTS

Descriptive Statistics and Product-Moment Correlations

The descriptive statistics and reliability coefficients, as well as the correlation coefficients between the constructs, are reported in Table 2.

From the results in Table 2, the composite reliability of all the measuring instruments was all above .70, except for quantitative job insecurity, which delivered a composite reliability score of .65 which was acceptable according to Bagozzi and Yi (1988). While both qualitative and quantitative job insecurity was found to correlate statistically significantly with work engagement negatively, only the relationship between qualitative job insecurity and work engagement showed practical significance with a medium effect. No statistically significant correlation was apparent between job crafting and either qualitative or quantitative job insecurity. However, job crafting correlated positively with work engagement, to a medium effect from a practical significance point of view.

Table 2: Descriptive statistics, reliability coefficients, and correlations

Variable	M	SD	ρ	1	2	3
1. Job Insecurity – Qualitative (1-5)	2.85	0.94	0.81	-		
2. Job Insecurity - Quantitative (1-5)	2.82	0.94	0.65	0.59†**	-	
3. Job crafting (1-7)	4.09	1.69	0.88	-0.04	0.02	-
4. Work engagement (0-6)	4.58	1.27	0.78	-0.38†**	-0.16**	0.32†**

* $p < 0.05$
** $p < 0.01$
† $r > 0.30$
‡ $r > 0.50$

Testing the measurement model

Using Mplus (Muthén & Muthén, 1998-2018), two measurement models were specified and tested for fit (both including the same job crafting and work engagement factors): one for qualitative job insecurity and one for quantitative job insecurity. No competing measurement

models were specified, as all three constructs were defined as consisting of only one factor by the respective authors.

Table 3 presents the fit statistics of the measurement models.

Table 3: Fit statistics of the measurement model

Model	AIC	BIC	ABIC	χ^2	df	RMSEA	CFI	TLI	SRMR
Job insecurity – Qualitative	43176.80	43378.70	43257.98	128.96	39	0.04	0.98	0.97	0.03 1.0917
Job insecurity - Quantitative	44432.05	44623.42	44509.06	134.71	41	0.04	0.98	0.97	0.03 1.1028

χ^2 = chi-square
df = degrees of freedom
AIC = Akaike Information Criterion
BIC = Bayesian Information Criterion
ABIC = Sample-size Adjusted BIC
TLI = Tucker-Lewis Index
CFI = Comparative Fit Index
RMSEA = Root Mean Square Error of Approximation
SRMR = Standardized Root Mean Square Residual

Qualitative job insecurity was measured by four items (De Witte et al., 2010) which yielded the following fit indices: χ^2 = 128.96 (MLR adjusted χ^2 = 1,0917) with *df* = 39 (*p* < 0.001); CFI = 0.98; TLI = 0.97; RMSEA = 0.04; SRMR = 0.03; AIC = 43176.80, BIC = 43378.70, and ABIC = 43257.98. Based on modification indices (MIs), two sets of items indicated high correlated error variance. JIQL1 ("I think my job will change for the worse") and JIQL2 ("Chances are, my job will change in a negative way"), as well as JIQL3 ("I feel insecure about the characteristics and conditions of my job in the future") and JIQL4 ("I am worried about how my job will look like in the future"). These items' error variances were allowed to correlate, thus improving model fit further.

Quantitative job insecurity was also measured by four items (De Witte, 2000) which yielded the following fit indices: X^2 = 134,71 (MLR adjusted X^2 = 1,1028); (*df* = 41; *p* < 0.001); CFI = 0.98; TLI = 0.97; RMSEA = 0.04; SRMR = 0.03; AIC = 44432,05, BIC = 44623,42, and ABIC = 44509.06.

The AIC, BIC, and ABIC fit indices were not be interpreted further as the intention of the study is not to compare models.

The statistics display a good fit for the Qualitative and Quantitative job insecurity model.

Testing the structural model

The two measurement models formed the basis for testing the direction of the hypothesised model. Once again, two structural models were specified, one for each of the job insecurity sections (still including job crafting and work engagement). The results are reported in Table 4.

Table 4: Initial framework fit indices and standardized path coefficients

Measures		Direct and indirect pathways (Job insecurity - Qualitative)	Direct and indirect pathways (Job insecurity - Quantitative)
Fit indices	AIC	43264.47	44523.94
	BIC	43461.06	44710.00
	ABIC	43343.52	44598.81
	χ^2	211.02	219.74
	Df	40	42
	RMSEA	0.05	0.05
	CFI	0.96	0.96
	TLI	0.95	0.94
	SRMR	0.08	0.08
Direct pathways to work engagement	Job insecurity - Qualitative	-0.38**	-
	Job insecurity - Quantitative	-	-0.16**

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

Table 4 shows that qualitative job insecurity significantly precedes work engagement at -.38 and quantitative job insecurity at -.16. In other words, higher levels of qualitative and quantitative job insecurity are associated with reduced work engagement. Although qualitative and quantitative job insecurity was found to influence work engagement, quantitative job insecurity demonstrated a smaller influence on work engagement as compared to qualitative job insecurity.

Since it was found that there were indeed negative relationships between both qualitative and quantitative job insecurity, and work engagement, hypothesis 1 was accepted.

Buffer effects

To determine whether job crafting buffered the relationship between job insecurity and work engagement, moderation analysis was performed in the PROCESS macro (Hayes, 2012). Firstly, the analysis examined job crafting as a buffer in the relationship between qualitative job insecurity and work engagement. Figure 1 provides the results with job crafting as a buffer in the relationship between qualitative job insecurity and work engagement.

Figure 1. Job crafting as a buffer in the relationship between qualitative job insecurity and work engagement among staff in public higher education institutions.

Secondly, the analysis examined job crafting as a buffer in the relationship between quantitative job insecurity and work engagement. Figure 2 provides the results with job crafting as a buffer in the relationship between quantitative job insecurity and work engagement.
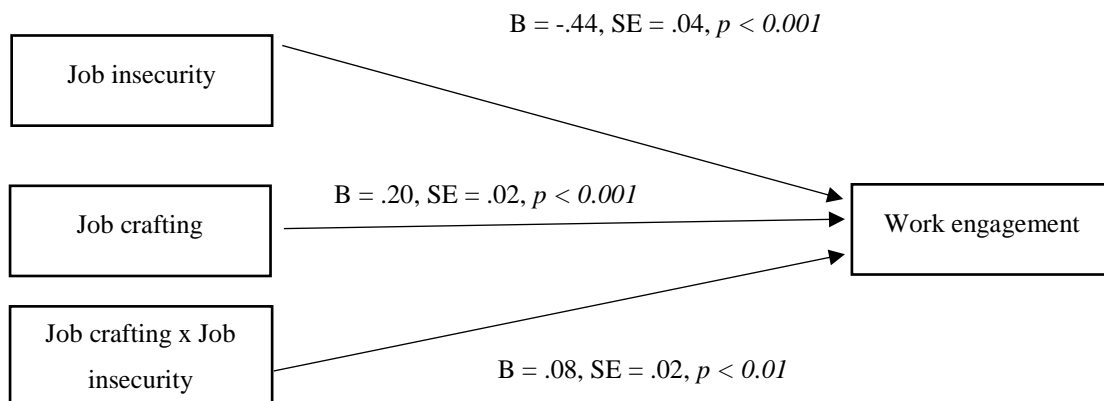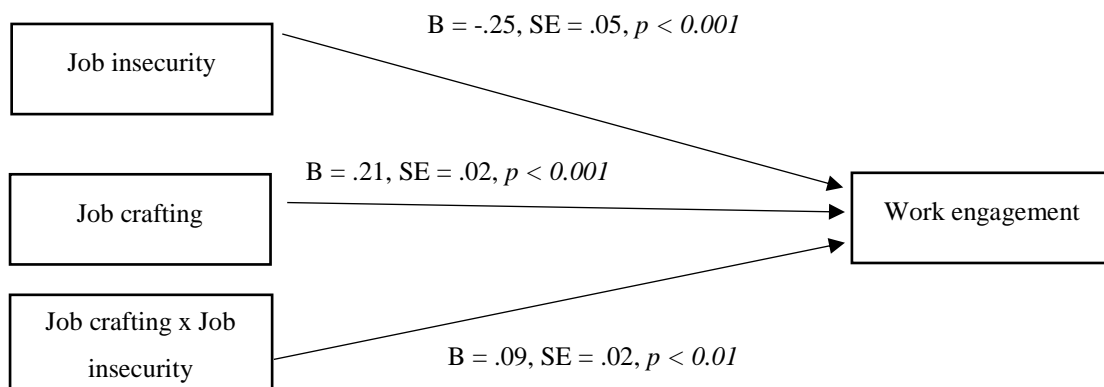

Figure 2. Results of job crafting as a buffer in the relationship between quantitative job insecurity and work engagement among staff in public higher education institutions.

Next, simple slopes analysis was done to illustrate the effect of the interaction between qualitative job insecurity and job crafting on the level of work engagement.

Figure 3. Buffer effect on work engagement

As per Figure 3, simple slopes analysis showed that when job crafting is low, there is a significant negative relationship between qualitative job insecurity and work engagement $b = -.60$, 95% CI [-.711, -.480], t = -10.16, $p = <.001$. The same negative relationship between qualitative job insecurity and work engagement was found at the mean value of job crafting, $b = -.44$, 95% CI [-.525, -.358], t = -10.54, $p = <.001$, as well as at high levels of job crafting $b = -.28$, 95% CI [-.393, -.175], t = -5.10, $p = <.001$. Figure 3 shows that low job crafting presented with the steepest slope, while for individuals high on job crafting the slope was less steep. Therefore, for individuals high on job crafting the relationship between qualitative job insecurity and work engagement was the weakest.

Next, simple slopes analysis was done to illustrate the effect of the interaction between quantitative job insecurity and job crafting on the level of work engagement
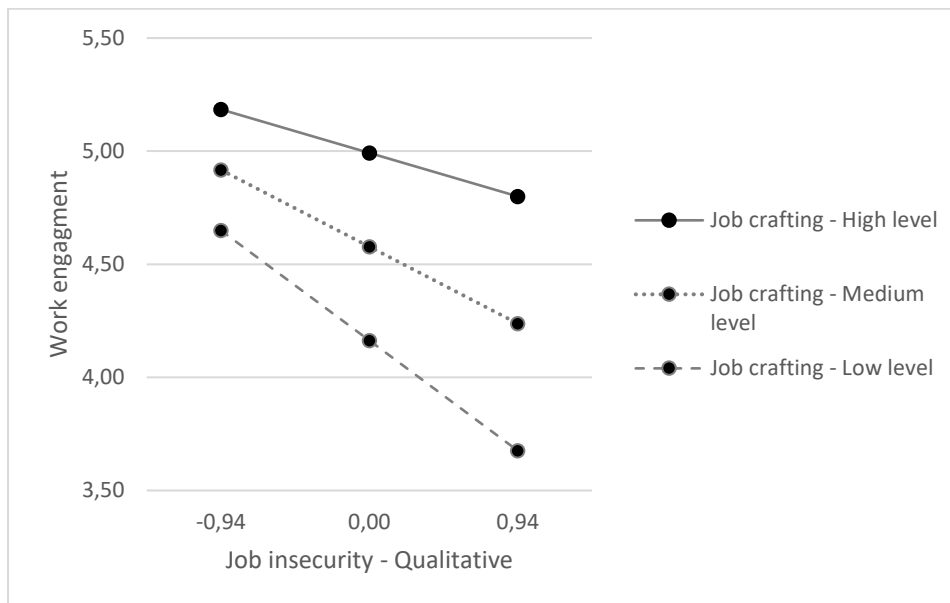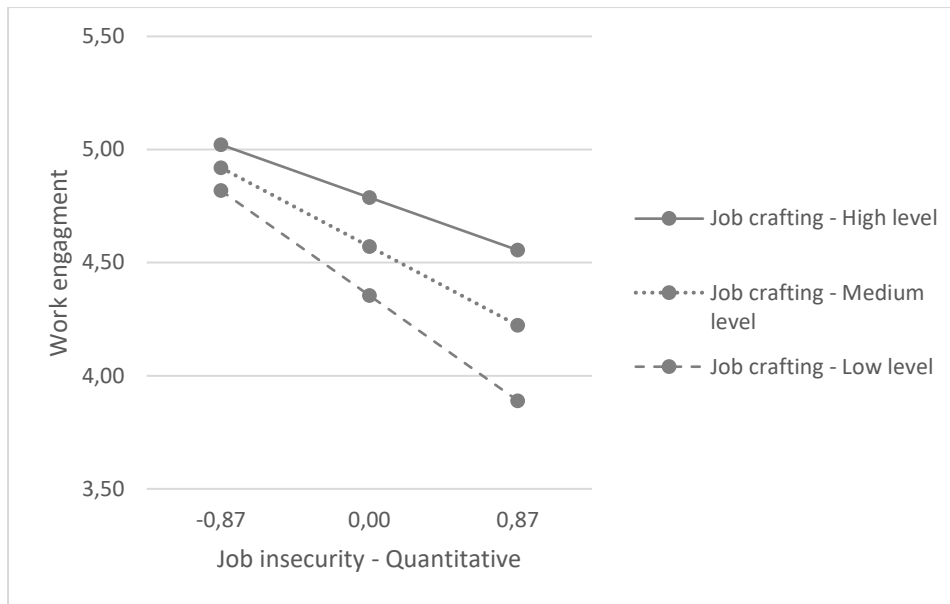
Figure 4. Buffer effect on work engagement

As demonstrated in Figure 4 simple slopes analysis showed that when job crafting is low, there is a significant negative relationship between quantitative job insecurity and work engagement $b = -.38$, 95% CI [-.511, -.250], t = -5.71, $p = <.001$. The same negative relationship between quantitative job insecurity and work engagement was found at the mean value of job crafting, $b = -.25$, 95% CI [-.341, -.156], t = -5.26, $p = <.001$. However at high levels of job crafting the relationship became statistically insignificant $b = -.12$, 95% CI [-.244, -.012] t = -1.78, $p = .08$. Figure 4 shows that low job crafting presented with the steepest slope, while for individuals average on job crafting the slope was less steep. At high levels of job crafting, the relationship between job insecurity and work engagement became statistically insignificant. The Johnson-Neyman technique was used to calculate the region of significance of the conditional effect of job insecurity on work engagement at a 95% significance level. A value of 1.58 was shown as the statistical significance transition point on the job crafting continuum.

Partial support was found for hypothesis 2a. As hypothesised, job crafting buffered the relationship between quantitative job insecurity and work engagement among staff in public higher education institutions, however only at low and mean levels of job crafting, not at high levels of job crafting.

Support was found for hypothesis 2b. As hypothesised, job crafting buffered the relationship between qualitative job insecurity and work engagement among staff in public higher education institutions.

DISCUSSION

The study explored the relationship between job insecurity, work engagement and job crafting. Overall, the results indicated a significant negative correlation between the participants' perception of job insecurity and their levels of work engagement. The results showed that participants who had experienced qualitative job insecurity had higher levels of reduced work engagement. Quantitative job insecurity demonstrated a smaller influence on work engagement compared to qualitative job insecurity. It appears from the results that staff members in public higher education institutions experienced the impact of qualitative job insecurity on work engagement more significantly than the impact of quantitative job insecurity on work engagement. We can, therefore, deduce that the engagement levels of employees are more strongly linked to qualitative job insecurity. The findings of the relationship between job insecurity and work engagement are in agreement with those of Bakker and Demerouti (2007) and De Cuyper, Bernhard-Oettel, Berntson, De Witte, and Alarco (2008), who found that job insecurity is related to reduced work engagement.

The study aimed to investigate whether job crafting can be used as a buffer between job insecurity and work engagement. The findings agree with those of Bakker, Tims and Derks (2012), who found job crafting to be a proactive approach that can be used to cope with the negative consequences of job insecurity. In relation to quantitative job insecurity, job crafting buffered the impact of quantitative job insecurity on work engagement when job crafting was low and at mean levels of job crafting. This buffering effect, however, became statistically insignificant at high levels of job crafting. With regard to qualitative job insecurity, job crafting was found to buffer the impact of job insecurity on work engagement. This implies that when employees fear or worry about their valued job features, such as degeneration of working conditions, a lack of career opportunities, and salary development, they can proactively make a range of possible changes to their work through job crafting. That behaviour is said to decrease the negative consequences of job insecurity on their work engagement and allow them to optimise their functioning. By optimising their functioning, they create meaning and work identity, and they improve in how they fit with their jobs, which would then increase their engagement levels at work (Vanbelle, 2017). The finding

that the buffering effect of job crafting on the relationship between quantitative job insecurity and work engagement becomes insignificant at high levels of job insecurity may be related to participants reaching an optimal level of quantitative job insecurity beyond which engaging in job crafting does not make a meaningful difference. Theoretically, individuals can craft to buffer valued job features which they may have lost, but not in instances where they anticipate that they will lose their jobs in its entirety, in other words quantitative job insecurity, in that instance they may feel that they have less influence. Furthermore, the finding that engagement levels of employees are more strongly linked to qualitative job insecurity, as compared to quantitative job insecurity, as well as the different buffering effects that job crafting has in both of these relationships may be related to theoretical alignment between the constructs and associated measuring instruments used in this study, for example with some items in the job crafting scale appearing that they may be more helpful in the instance of qualitative versus quantitative job insecurity.

Overall, it can be concluded that high levels of job crafting are related to a decreased negative impact of job insecurity on work engagement. The findings of this study contribute valuable knowledge on the relationship between these constructs, it also provides a practical approach that can be used to deal with the negative effects that job insecurity has on work engagement of staff in the context of public higher education institutions.

Limitations and recommendations for further study

The limitations of this study should be considered when interpreting the results. Firstly, one of the limitations of this study is the utilisation of a cross-sectional design. Research that uses a cross-sectional design is based on data that was collected at one point in time, suggesting that the study might provide different results if data was collected within a different time frame. A cross-sectional design also hinders the ability to infer a causal relationship between variables. Secondly, since all the variables were measured by self-reported questionnaires, the results may be exposed to common method variance. Lastly, since the study was not conducted in all public higher education institutions in South Africa, it could be a limitation to generalise this study to all South African higher education institutions, as well as to higher education institutions in other countries.

Despite the noted limitations, various recommendations can be made. Individuals who suffer from job insecurity experience a different type of job stressor compared to those who end up losing their jobs (Huang, Zhao, Niu, Ashford, & Lee, 2013). In the case of job insecurity,

people are still employed, yet the future existence of their jobs or features of their jobs are unknown. This leaves them not knowing what measures to put in place to gain control over their situation (Lee et al., 2018). In one study, employees who felt insecure about their jobs were reported to participate in deviant behaviours because of the stress that they experienced (Tian, Zhang, & Zou, 2014). Employees may also believe that the organisation let them down by not keeping their promises, and, thus, blame the organisation for the presence of job insecurity (Tian et al., 2014; Vander Elst et al., 2016). Research shows that during uncertain situations, employees may be motivated to proactively engage in behaviours that would reduce uncertainty (Grant & Ashford, 2008). According to Grant and Ashford (2008), proactive action means an anticipated behaviour that employees may perform to alter themselves or their context. One way of doing so is engaging in job crafting. During uncertain times, organisations may identify job crafting as an alternative approach to the commonly known top-down re-design approach (Demerouti & Bakker, 2014; Parker 2014).

Since the presence of job crafting buffers the impact of job insecurity on work engagement, public higher education institutions' management and employees need to create an environment where employees have the opportunity to job craft (Harju, Hakanen, & Schaufeli, 2016). This study was based on job crafting as an overarching approach. This means that employees have the freedom to craft according to their needs, values and goals to improve their functioning (Vanbelle et al., 2017).

As employees themselves initiate job crafting, managers play an essential role in encouraging possible ways and resources for employees to job craft (Wrzesniewski & Dutton, 2001). Managers can embed job crafting into their culture and continuously support employees to invest their energy in enhancing the meaning of their work through job crafting (Tims, Derks, & Bakker, 2016; Zhang & Li, 2020). There is research that supports that autonomy and workload precede job crafting (Ghitulescu, 2006; Tims & Bakker, 2010; Wrzesniewski & Dutton, 2001). Therefore, an organisation that has autonomy allows employees to have the freedom, control and responsibility of their work, thus, nurturing the proactive behaviour of job crafting (Petrou, Demerouti, & Schaufeli, 2015; Vanbelle et al., 2017). Autonomy and setting more challenging tasks for employees is one way in which organisations can encourage job crafting (Petrou et al., 2015). Another way in which management can increase the activity of job crafting is by nurturing the capability and motivations of employees and establishing ways in which they can innovate (Guan & Frenkel, 2018).

On an individual level, it appears that employees who have intentions to job craft are the ones who perform job crafting activities (Sheeran, 2002). Not all individuals may have the desire to engage in job crafting; thus, feedback may help them become more aware of their environment and what changes they can initiate to improve aspects of their jobs (Tims, Bakker, & Derks, 2015). Researchers found that employees with self-efficacy are more likely to change task and social boundaries of their work by improving their abilities, continuously learning, carrying out more tasks, being involved in new projects, and seeking feedback from colleagues and managers (Miraglia, Cenciotti, Alessandri, & Borgogni, 2017). These researchers found that when employees believe in their capabilities, they are more likely to look for opportunities that can challenge them, improve their abilities and develop them both personally and professionally (Miraglia et al., 2017). Employees' self-efficacy can be increased when individuals work in a resourceful environment, and they are perceived as competent and valued (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009). Individuals' self-efficacy can furthermore be increased by crafting a resourceful and meaningful environment where they can feel that they are in control and are able to influence their environment (Miraglia et al., 2017; Xanthopoulou et al., 2009).

In summary, the factors that increase job crafting are found on an individual and organisational level. On an individual level, differences in psychological states and personality traits precede job crafting; on an organisational level, organisational climate and management support increase job crafting (Petrou, 2013). Furthermore, a proactive personality increases job crafting; thus, proactivity among employees should be encouraged, both on an individual and organisational level (Vermooten, Boonzaier, & Kidd, 2019). On an individual level, proactivity is related to knowledge, skills, abilities and personality traits; on an organisational level they are found in the organisations' climate and leadership support (Strauss & Parker, 2014).

For further research, it is recommended that this research be expanded to other public higher education institutions in South Africa, utilising a longitudinal study to make inferences of the causal relationship between the different variables.

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CHAPTER 3: CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

The purpose of this chapter is to describe the conclusions drawn from this study and offer limitations and recommendations based on the results. The findings will be based on the research objectives. Furthermore, the limitations of this study will be discussed; following that, recommendations will be made for future research in the industrial psychology field.

3.1   CONCLUSIONS

South African higher education institutions are faced with challenges that make it difficult to drive change and transformation. In order to redress the inequalities that were created by the apartheid system, transformation is needed (Council on Higher Education [CHE], 2016). Over the years, higher education has made progress in achieving goals that have been set in the transformation agenda; however, continuing challenges cannot be overlooked (Karodia, Shaikh, & Soni, 2015). The student protests of 2015 and 2016 attest to the reality that higher education institutions have not succeeded in achieving their plans to ensure that higher education is accessible and equal to all South Africans (Carolin, 2018; Tjønneland, 2017). Furthermore, since the transformation of higher education institutions include changes in the sector, mergers and unrest bring about perceptions of job insecurity (Setati, 2014). Job insecurity is an essential aspect that organisations such as higher education institutions need to give priority to because its effects are harmful, and they negatively affect work-related elements such as work engagement (De Witte, 2005; Greenhalgh & Rosenblatt, 1984). The negative consequences of job insecurity on work engagement result in a reduction of engagement (Bakker & Demerouti, 2007; De Cuyper, Bernhard-Oettel, Berntson, De Witte, & Alarco, 2008). When an employee's engagement drops, this has negative results for the performance of the organisation (Bakker & Schaufeli, 2014). It becomes crucial, therefore, that employees know what to do amidst the experience of job insecurity so that they can increase their work engagement (De Witte, De Cuyper, Vander Elst, Vanbelle, & Niesen 2012). This study proposed job crafting to be an approach that employees could use to buffer the relationship between job insecurity and work engagement.

Thus, the general aim of the study was to investigate the relationship between job insecurity, work engagement and job crafting of staff in public higher education institutions in South Africa. More specifically, the study was interested in understanding buffers that could be

used to cope with the negative consequences of job insecurity on work engagement (Vander Elst, Bosman, De Cuyper, Stouten, & De Witte, 2013). This study aimed to fill a gap in the literature by proposing a way to help employees cope with their perceptions or experiences of job insecurity (Lee, Huang, & Ashford, 2018).

The first objective of the study was to investigate the relationship between the three constructs according to literature. Studies confirm that job insecurity leads to reduced work engagement (De Witte, Vander Elst, & De Cuyper, 2015; Stander & Rothmann, 2010). Research also found that job crafting is a promising bottom-up approach that can assist employees in staying motivated and showing increased work engagement (Bakker, Tims, & Derks, 2012).

For the second and third objectives of this study, statistical analysis using Mplus and SPSS was utilised to test the relationship between the three variables. The analysis showed overall significance in the relationship between job insecurity, work engagement and job crafting. The results imply that job insecurity does have a negative impact on work engagement and job crafting does act as a buffer between job insecurity and work engagement (Bakker & Demerouti, 2007; Bakker et al., 2012; De Cuyper et al., 2008).

Furthermore, the following findings are highlighted. Job insecurity does lead to reduced work engagement, and this relationship was stronger for qualitative job insecurity than it was for quantitative job insecurity. In addition, job crafting does buffer the relationship between job insecurity and work engagement, especially in the context of qualitative job insecurity. This study found that when qualitative job insecurity interacts with job crafting, the negative impact of job insecurity on work engagement decreases. Job crafting was found to buffer the impact of quantitative job insecurity on work engagement, at low and mean levels of job crafting, although not at high levels of job crafting. This may be related participants reaching an optimal level of quantitative job insecurity beyond which engaging in job crafting does not make a meaningful difference. Furthermore, theoretical alignment between the constructs and associated measuring instruments used in this study may have influenced the results. However, it is known that when employees perceive job insecurity, they experience a sense of powerlessness which leaves them not knowing what to do to maintain continuity in a threatened job situation (De Witte, 2005; De Witte et al., 2012; Greenhalgh & Rosenblatt, 1984). The use of job crafting changes the picture by giving employees a sense of control by

making self-initiated changes that will provide them with purpose and meaning. When employees job craft, they stop being passive and restrained by the stressful nature of job insecurity; and job insecurity has a reduced negative effect on their levels of work engagement.

3.2   LIMITATIONS

Various limitations should be noted in this research. Firstly, the use of a cross-sectional design does not allow for causal relationships to be tested amongst the constructs of the study. As a result, the causal connection amongst the study variables could merely be interpreted and not determined. To address this limitation, other researchers in future may use a longitudinal research design.

Secondly, the use of self-reported questionnaires for all three constructs may be regarded as a limitation. A problem associated with self-reported questionnaires is that results may be influenced by common method variance. It has been suggested that future research could use multiple methods of measurement or analysis to solve problems associated with common method variance (Lindell & Whitney, 2001).

Thirdly, the study did not deduce whether employees in public higher education institutions experienced qualitative job insecurity or quantitative job insecurity more significantly, as it was beyond the scope of this study. Future researcher may investigate which type of job insecurity is predominant in higher education institutions in South Africa. Also, given the findings of this study, a more in depth analysis of the impact of quantitative versus qualitative job insecurity on work engagement, and the role of job crafting in these respective relationships may be of value.

Fourthly, this study did not consider biographical details. It also did not differentiate between academic and support staff experiences of job insecurity and its relationship with work engagement, as it was beyond the scope of the study.

Lastly, since the study was not conducted in all public higher education institutions in South Africa, it could be a limitation to generalise this study to all South African higher education institutions, as well as to higher education institutions in other countries.

3.3   RECOMMENDATIONS

3.3.1   Recommendations for the Organisations

Firstly, both employees and human resource (HR)/managers of public higher education institutions must understand job insecurity and its impact on essential work outcomes such as work engagement. The results of the study showed that job insecurity has a negative relationship with work engagement. Organisations are known to benefit from engaged employees; they should, therefore, not ignore the reality of job insecurity (De Witte et al., 2015; Kahn, 1990). Work engagement affects both the individual and the organisation (Shuck & Wollard, 2010). If employees are not engaged, this has an impact on their satisfaction, commitment and involvement with their work (Wollard & Shuck, 2011). Concerning the organisation, work engagement is vital to improve the organisation's performance (Schaufeli & Bakker, 2014). Therefore, managers can encourage their employees to use job crafting as a bottom-up strategy of coping with the negative effects of job insecurity, as well as create more meaning in their jobs to improve their working conditions (Demerouti, 2014). In this study, the interaction between job insecurity and job crafting reduced the negative relationship between job insecurity and work engagement.

A perspective that this study provides to managers is that employees who perceived qualitative job insecurity tended to have lower levels of work engagement. Participants who perceived quantitative job insecurity to a lesser extent experienced a reduction in work engagement. Therefore, the engagement levels of employees in higher education institutions appear to be more strongly linked to qualitative job insecurity. Qualitative job insecure employees tend to be worried about the continuation of essential job features, for example devaluation of their working conditions (Hellgren, Sverke, & Isaksson, 1999; Van den Broeck et al., 2014). Job insecurity therefore affects employee engagement negatively, and managers should be concerned, especially with the engagement levels of their employees, in times of uncertainty where a perception of insecurity of jobs or job features exists. Work engagement is a concern for managers because how well employees' engagement levels are, is indicative of the level of occupational well-being for both employees and organisations. Engaged employees perform better than those who are not engaged, for the following reasons: "engaged employees often experience positive emotions, including happiness, joy, and enthusiasm; experience better health; create their own job and personal resources; and transfer their engagement to others" (Bakker & Demerouti, 2008, p. 215).

In the context where job insecurity is experienced, job crafting played a buffering-effect type of role that reduced the negative impact of job insecurity on work engagement. Employees who job craft, actively give meaning to their tasks or jobs and negotiate or choose different tasks or content (Bakker, 2011; Wrzesniewski & Dutton, 2001). This suggests that employees could remain actively involved in their work and not be consumed by worrying or stressing over their jobs or job features. It implies that job crafting will help them feel full of energy, remain dedicated to achieving their work-related outcomes and be fully immersed in their work (Bakker, 2011). When an organisation introduces job crafting, they can begin to see a change in how employees experience job insecurity. The introduction of job crafting will reduce the negative impact of job insecurity on work engagement. The buffering effect of job crafting shows that proactive, self-initiated, active changes actually decreases the deleterious effects of job insecurity on work engagement.

A recommendation is made that organisations should create workplaces that foster job crafting. To encourage job crafting, the organisation should allow for autonomy. That way, employees can fulfil a purpose by making changes to their job design through job crafting to increase their work engagement (Petrou, Demerouti, & Schaufeli, 2015; Vanbelle, Van den Broeck, & De Witte, 2017). According to Harju, Hakanen, and Schaufeli (2016), employees might benefit from having engaged leaders who connect with them and provide them with feedback, thus increasing their job resources (Schaufeli, 2016). Furthermore, during uncertain times, employees may reduce the negative consequences of job insecurity through supervisor coaching, support and encouragement to craft their jobs (Harju et al., 2016).

Guan and Frenkel (2018), in their study, note the following measures that managers can implement in order to encourage and support job crafting. Job crafting can be increased in organisations through managers sharing feedback on the outcomes of job crafting initiatives (Guan & Frenkel, 2018). By doing so, they can highlight the successful efforts and those that need to be improved. In addition, job crafting activities that optimise employees' performance can be recognised and rewarded during performance appraisals (Guan & Frenkel, 2018). Furthermore, employees can continuously go through training and hold workshops where they can exchange knowledge and propose ways in which jobs can be changed to suit the needs of individuals (Guan & Frenkel, 2018).

Another form of intervention that organisations can implement is by managers creating social norms for job crafting and portraying a positive attitude for job crafting (Tims, Bakker, & Derks 2015). The benefits of job crafting will be more evident when individuals "hold a positive attitude towards job crafting, when they feel social pressure to engage in job crafting and when they perceive job crafting to be easy" (Tims et al., 2015, p. 925).

Another antecedent of job crafting is proactive personalities. A recommendation is that human resource managers could implement developmental interventions that would empower individuals with the knowledge, skills and abilities required for proactivity (Vermooten, Boonzaier, & Kidd, 2019). That way, employees will not only observe crafting in their work environment; they will also be trained on how they can consciously make efforts to engage in job crafting. Studies confirm that training is a powerful approach to encouraging job crafting (Dubbelt, Demerouti, & Rispens, 2019; Gordon, 2015). In addition, a recommendation is that managers should model job crafting practices so that employees could observe how job crafting results in positive outcomes for individuals and the organisation (Demerouti, 2014).

3.3.2 Recommendations for Future Research

The results of this study have valuable implications and recommendations for future research. Findings regarding the relationship between job insecurity, work engagement and job crafting for higher education in South Africa need further investigation from other researchers. This study was the first to examine job crafting as a moderator to buffer the negative relationship of job insecurity and work engagement in South African public higher education institutions. Further research could focus on other possible buffers or moderators that could be used to cope with the consequences of job insecurity by university staff members.

For future research relating to staff in higher education institutions, the following recommendations could be proposed: firstly, the use of longitudinal studies to determine causal effects and relationships between job insecurity, work engagement and job crafting. Secondly, it is recommended to extend the study to higher education institutions in the country as well as internationally to be able to generalise the results. Thirdly, the Overarching Job Crafting Scale is new, and while Vanbelle et al., (2017) found good results for this scale, additional validation studies would be advisable. Finally, because this study includes only three constructs, future research could investigate other workplace outcomes that occur as a

result of job insecurity in public higher education institution in South Africa. Following that, future research can provide scientific evidence of how staff in higher education uses job crafting as an active approach. This will add to creating a better understanding of the concept within the higher education sector.

In conclusion, during job insecurity, employees may cope with their feelings of helplessness and uncertainty by job crafting in order to decrease the negative impact that job insecurity has on their work engagement. The higher education institutions can support employees by promoting job crafting as an intervention to buffer the negative effects of job insecurity on work engagement. Job crafting as a strategy gives employees an approach to decrease the negative impact that job insecurity has on their levels of work engagement.

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