The impact of job demands and job resources on work engagement and turnover intentions within the Information Technology division of a South African bank

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KEYWORDS

Job demands
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Work engagement
Utrecht work engagement scale (UWES-17)
Turnover intentions
Turnover intentions scale (TIS)
Intention to stay (retention)
Information technology (IT)
Banking industry

ABSTRACT

Organisations within the banking industry are increasingly confronted with attraction and retention challenges within their Information Technology (IT) divisions, driven by an increase in demand for skilled resources within the market. This places organisations under pressure to devise retention strategies to retain these employees. Due to the link between employee engagement and retention, organisations should strive towards understanding the drivers of engagement to ensure effective retention strategies can be developed to retain these employees.

The primary objective of the study was to gain a deeper understanding of the impact of job resources and job demands on work engagement and employee turnover intentions within the IT division of a South African bank. The Job Demands-Resources (JD-R) model was applied as theoretical framework to identify the unique job resources and job demands driving work engagement and turnover intentions of employees within this highly specialised section of the South African banking industry. Quantitative data was collected from 239 IT professionals via a self-administered, web-based survey comprising of four sections. Participation in the survey was voluntary, anonymous and confidential. The first section of the survey consisted of gathering of the participants' biographical and employment information. The subsequent sections provided a measurement of the specific latent variables using valid and reliable measuring instruments, including the the Utrecht Work Engagement Scale (UWES-17) designed by Schaufeli, Salanova, González-Romá and Bakker (2002), the Job Demands-Resources Scale (Jackson & Rothmann, 2005), and Roodt's (2004) Turnover Intentions Scale (TIS).

The data transformation process consisted of three broad phases. During the first phase, confirmatory factor analysis (CFA) followed by exploratory factor analysis (EFA) were employed to determine the factor loadings on the overall scale. Reliability analysis was also performed to determine whether the newly structured measurement instruments would produce consistent results with continued application. The second phase included a description of the newly structured measurement instruments through the application of various descriptive statistics. The third and final analysis phase applied inferential testing of the sample in an attempt to either infer the truth or falsify the research propositions through the application of correlation and regression analysis.

As all of the job demand items from the original factor structure did not load onto any of the factors in the newly structured measurement model, the results of the present study could only

provide a clear indication of the specific job resources considered imperative for continued work engagement and retention of IT employees. Access to job resources related to growth opportunities, social support and financial rewards contributed to both increased work engagement and intentions to stay. Furthermore, the provision of role clarity will ensure continued work engagement of IT employees. In conclusion, opportunities for advancement as job resource had a significant impact on the turnover intentions of the IT employees. This knowledge could contribute to the design of more effective retention strategies for organisations with scarce and critical IT skills. The potential limitations of the current research study and recommendations for future research endeavours were defined to conclude the study.

DECLARATION

I hereby declare that *The impact of job demands and job resources on work engagement and turnover intentions within the Information Technology division of a South African bank* is my own work, that it has not been submitted before for any degree or examination in any other university, and that all the sources I have used or quoted have, to the best of my knowledge, been indicated and acknowledged as complete references.

Full name: Jana van Heerden

Date: November 2015

Signed:.....

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1.1 Introduction

In the modern world of work, organisational success greatly depends on an organisation's ability to effectively apply Information Technology (IT) and to ensure the availability and performance of their IT employees. Although organisations appoint employees to apply their expertise to perform specific duties as part of a job, most organisations consider their IT employees as key value-adding resources that form a significant part of any business. Organisations depend on their IT resources to contribute to the planning, development, maintenance and integration of critical organisational systems (Mohlala, Goldman & Goosen, 2012). Due to this dependency, the loss of these resources due to resignation could have a significant impact on the delivery of key business objectives reflected in disruptions in project flows, impact on quality of deliverables, and loss of intellectual property.

Venkatesh (2013) states that organisations should focus on understanding the personal values that drive employee decisions and ultimately organisational results. Employee engagement is considered the utmost form of dedication, according to Venkatesh (2013), where employees actively focus on contributing to the benefit of the organisation. Viewed from a positive perspective, Schutte, Toppinen, Kalimo and Schaufeli (2000) defined work engagement as an energetic state in which an employee shows dedication towards exceptional work performance and confidence in his or her work effectiveness. An employee's expressed level of engagement is also viewed as a strong predictor of organisational performance, contributing to organisational benefits related to increased rates of employee retention, a decrease in turnover and increased organisational performance and profitability (Human Capital Institute, 2011).

Organisations apply engagement strategies to create a better understanding of these values to further enhance employee loyalty towards their job, team and organisation. Robinson, Perryman and Hayday (2004) state that employees with high engagement levels exhibit an awareness of the business context and will foster teamwork to improve on-the-job performance to the benefit of the organisation. As engaged employees exhibit a strong commitment to an organisation's strategic objectives, vision, mission and values (Venkatesh, 2013), organisations must actively strive to develop and nurture employee engagement to achieve profitable and enduring employee relationships.

1.2 Background to and motivation for the study

Over the past decades, the importance and prominence of IT within organisations have increased. According to Van Dyk (2011), the retention of employees with key critical skills within the IT realm is becoming a top priority for organisations to remain competitive. As the supply of skilled IT professionals is unable to keep up with the market demand, the shortage of skills will become even more prevalent as employees reach retirement age. The main driver leading to organisations experiencing challenges with the availability and competency of IT professionals is attributed to the rapidly changing and advancing technology available and applied within organisations (Mohlala et al., 2012). As the application of and reliance on information systems and technology continues to increase, an organisation's ability to retain valuable technical people resources is likely to become a critical contributor in the attainment of the strategic organisational goals. Although the need for experienced IT professionals is expanding, an equivalent increase in the supply of IT talent has not emerged, according to Moore (2000).

According to Mak and Sockel (2001), the constant change in technology is leading to IT employees experiencing increased job stress and a fear of becoming replaceable. Due to this changing world of work, the competencies required of an IT professional will also change accordingly. McGee's (2005) report on the factors contributing to this skills challenge highlighted the scarcity of relevant skills sets (33%) and rapid organisational growth (31%) as some of the key drivers contributing to the organisational challenges associated with increased turnover. The Global Talent 2021 study cited in the Towers Watson Global Workforce Study (2012) highlight the new competency set that would be in high demand within the next five to ten years, including digital skills (i.e. virtual work and application of social media), agile thinking (i.e. ability to deal with complexity and uncertainty), interpersonal skills (i.e. physical and/or virtual team work) and global operating ability (i.e. managing diversity, understanding international markets, and cultural sensitivity).

According to Van Dyk and Coetzee (2012), the shortage of specialist skills is considered a significant obstacle to economic growth and job creation within South Africa. As organisations are being challenged to retain and maintain their IT talent, the fostering of employee engagement and commitment becomes significant contributors to people feeling valued, adding meaning to their work, and increasing their commitment, drive and engagement towards their job and organisation. According to Lumley, Coetzee, Tladinyane and Ferreira (2011), trends within the IT labour market have also indicated an increase in career opportunities globally for competent IT professionals, underscored by continued challenges in the recruitment and

retention of these professionals by organisations. This supply-demand gap in the IT profession contributes to the staffing challenge: if IT professionals are not content within their current work environment, they are likely to find alternative employment opportunities in abundance.

The accessibility of career opportunities and salary information via the Internet has also prompted passive job seekers to become aware and consider more lucrative opportunities, according to Kochanski and Ledford (2001). Although an IT professional by nature would support the organisation adopting new technology to ensure they acquire new skills, organisations should motivate their IT staff by creating career development opportunities. According to a study conducted by the Human Capital Institute (2011) pertaining to the importance of career development in ensuring high levels of engagement in employees, it was found that employee retention rates are significantly higher in organisations with highly engaged employees. Facteau, Dobbins, Russell and Ladd (1995) also found employee motivation is dependent on the employee experiencing support from subordinates, direct line managers and top management. According to Babin and Boles (1996), an employee's perceptions of employer support could contribute to an increase in job satisfaction, motivation, a reduction in levels of stress and improved job performance. Motivation of the IT professional is, therefore, impacted by their experience of job satisfaction and perceptions of effective management policies related to career development (Mak & Sockel, 2001).

Organisations are reconfirming the emphasis on people as the most important asset, with an active organisational drive to create and promote an employer brand that is attractive to both existing and potential IT talent. Due to this increase in demand, organisations have refocused their approaches on the attraction and retention of critically skilled and experienced IT professionals. It is also imperative for organisations to understand the wider organisational impact of turnover. An increase in turnover of existing staff members will not only increase the costs associated with the replacement and training of new employees, but also lead to increased workload, job demands and prevalence of burnout should the organisations not manage their turnover effectively. As IT professionals typically have specialised and hard to replace skills vital to organisational success, the retention of these skills is considered vital to ensure business continuity.

According to Lumley (2010), this drive has resulted in organisations reviewing the constructs that have a substantial impact on an individual's job satisfaction and organisational commitment within a high technology environment. IT specialists should not be managed as disposable productive resources, according to Paré and Tremblay (2000), but rather as individuals with specific needs and interests for parity and justice, learning and innovation opportunity, seeking

acknowledgment from peers and managers, striving to attain new levels of responsibility, and being empowered. Key decision makers and managers should focus on encouraging the IT professionals by treating them as knowledgeable assets and assisting them to direct and shape their careers, creating an encouraging environment where the IT professional will be able to gain experience with their current employer.

As banks are striving to increase their daily application of technology in an attempt to improve client service and reduce operating costs, it is important for these organisations to not only create an environment where the IT professional will feel comfortable, driven and valued, but also understand the reasons that drive an individual's decision to resign. The effective management of IT professionals (i.e. management that contributes to the retention and performance optimisation of valued technology workers) is an area of increasing concern. This escalation in demand is increasing the pressure faced by organisations to initiate and implement effective retention strategies to retain their key and critical IT skills, according to Mohlala et al. (2012).

The main objective of the study is to gain a deeper understanding of the impact of job resources and job demands as antecedents of work engagement, and the resultant impact on employee turnover intentions within the IT division of a South African bank. This knowledge will assist with and influence the design of more effective retention strategies for organisations with scarce and critical IT skills and resources.

1.3 Research problem

Organisations within the IT driven banking industry are continuously challenged by a decrease in the availability of technically competent and skilled professionals due to the increase in demand for these skills. Competitors within the same industry will use aggressive recruitment techniques supported by various forms of monetary and non-monetary rewards in an attempt to attract the best talent. Due to the link between employee engagement levels and turnover intentions (i.e. Bakker, Demerouti & Schaufeli, 2003b; Bakker, Schaufeli, Leiter & Taris, 2008; Harter, Schmidt & Hayes, 2002; Schaufeli & Bakker, 2004;), organisations should strive towards understanding the drivers of engagement to ensure effective retention strategies can be developed to retain these employees.

This study will be conducted in the IT division of a South African bank. Although the specific division has been experiencing a five year period of unprecedented growth in the head count

budget due to planned expansion, the average voluntary turnover rate has consistently ranged between 10% and 12% of the overall head count over the same reporting period. Over the past 18 months (1 March 2014 to August 2015), the IT division reported an average voluntary turnover of 13.07% of the overall headcount. Taking the current supply and demand challenges associated with scarce and critical IT resources into consideration, the organisation will have to gain an understanding of the factors influencing their employees' levels of engagement and intention to stay with the organisation.

The study will, therefore, focus on addressing the following key question:

What is the impact of specific job resources and job demands as antecedents of work engagement on the turnover intentions of employees within the IT division of a South African bank?

1.4 Research objectives of this study

The main objective of the study was to gain a deeper understanding of the impact of job resources and job demands on work engagement and employee turnover intentions within the IT division of a South African bank. This research study was, therefore, undertaken to:

- Investigate job demands and job resources as factors impacting work engagement of IT professionals within the IT division of a South African bank.
- Determine which of the identified drivers of work engagement (job demands vs job resources) have the most significant impact on turnover intention within the IT division of a South African bank.
- Determine the indirect effect of work engagement on job resources and turnover intentions.
- Provide recommendations to the organisation to assist with the development of a retention strategy to increase employee intention to stay.

1.5 Limitations of the study

As the transformation in organisational structures and work processes is sustained and supported by IT, organisations will become more reliant on IT professionals for continued success and competitive advantage, according to Döckel (2003). The present study aims to

highlight the specific drivers of engagement impacting IT professionals' intention to stay with an organisation in the banking industry. Measuring engagement should, however, not be viewed as a singular event. As organisations continue to evolve and change, annual or bi-annual comprehensive surveys will provide valuable management information on employee engagement and retention levels to guide and direct pro-active change initiatives. As only the employees within a single organisation will be approached to participate in this research, the generalisability of results and identified trends to the IT divisions of other financial institutions (especially banks) could be questioned. The intention of this study is to make a contribution to ensuring a more comprehensive understanding of the challenges experienced by organisations specifically within the financial services industry to retain skilled IT professionals.

1.6 Outline of the chapters

Chapter 1 of the study provided an overview of the attraction and retention challenges generally faced by the IT divisions of organisations. Due to the increase in demand for skilled resources within the market, organisations are under pressure to formulate retention strategies in an attempt to increase the retention of their employees. This was followed by a discussion highlighting the link between employee engagement and retention levels, emphasizing the importance of organisations striving towards understanding the drivers of engagement to ensure effective retention strategies can be developed to retain these employees. The first chapter was concluded by providing a clarification of the motivation for the study, specifying the research problem and subsequent research objectives, and discussing the potential limitations of the study.

Chapter 2 of the study comprised of a literature review providing a theoretical basis to and underpinning for the study. Each of the variables of interest was defined, explained and discussed in terms of existing academic literature available on the subject. The relationships between the variables of interest were explored, with specific emphasis placed on understanding the link between employee engagement and turnover intentions, and subsequent organisational performance. Based on the information gathered during this process, a theoretical model was developed to provide a visual representation of the theorised relationships.

In chapter 3, the specific methodology applied during the research was outlined in detail, including a discussion on the research design, the research participants, the measuring instruments, and the ethical considerations to take cognisance of during the collection of the

research data. The chapter was concluded by providing an outline of the various statistical techniques applied during the three phases of statistical analysis conducted on the research data.

Chapter 4 was allocated to the discussion of the results derived from the statistical analysis applied. The reporting of the results was done in three broad sections. During the first stage of the data transformation process, the proposed structure and reliability of the utilised measuring instruments were revalidated for the study sample. Confirmatory factor analysis (CFA) followed by exploratory factor analysis (EFA) were employed to determine the factor loadings on the overall scale. Reliability analysis was, subsequently, performed to determine whether the new measurement instruments would produce consistent results with continued application.

The second phase included a description of the newly structured measurement instruments through the application of various descriptive statistics, including the mean, standard deviation, and a measure of skewness and kurtosis. The third and final analysis phase required inferential testing of the responses in an attempt to either infer the truth or falsify the research proposition (or stated research objectives), including the application of correlation analysis (provide an indication of the degree to which the changes in one variable are related with the changes in another) and regression analysis (establish possible causes of the variance between the different theoretical dimensions/categories). Both correlation and regression analysis were applied individually or in combination to investigate the potential effect of a third variable acting as moderator or mediator variable.

The final chapter of the study provided an interpretation of the research propositions, including theoretical support for the research findings. This was followed by an overview of the managerial implications of the reported results and findings, including suggested practical interventions to address the expressed challenges faced in addressing employee engagement and turnover intentions within this dynamic business sector. In conclusion, the potential limitations of the research study and recommendations for future research endeavours were defined.

1.7 Conclusion

The demand for and retention of talent is an international phenomenon and not a unique challenge in South Africa, according to Kotze and Roodt (2005). The “war on talent” is, however, heightened within the South African context due to three additional factors related to

(i) the continuous emigration of people with scarce and critical skills, (ii) the perceived scarcity of employees within the specialist and managerial fields due to an undersupply of people to address this skills shortage, and (iii) a national drive to address employment equity imbalances within organisations, leading to an increase in demand for talent amongst people from designated groups. To successfully address these challenges, South African organisations will have to pro-actively structure and implement strategies to attract, develop, effectively utilise and retain their existing talent pool.

Employee engagement is viewed as a critical factor to ensure organisational success. Organisations with engaged employees express higher satisfaction levels and employee retention rates. Organisations with higher levels of employee engagement typically exhibit an increase in employee retention as a result of a decrease in turnover intentions (Markos & Sridevi, 2010), leading to an increase in productivity, profitability, organisational growth and client satisfaction. In contrast, organisations with lower levels of employee engagement is characterised by ineffective application of key resources, leading to an increase in absenteeism and a decrease in commitment, productivity and client satisfaction.

Banks and other financial institutions will become more reliant on IT professionals for the continued organisational competitive advantage due to the increased application of technology within daily operations. For the banking industry to compete and operate at the forefront of technology, Mohlala et al. (2012) emphasise the significance of management understanding the impact of employee engagement, especially due to the significant relationship between employee engagement and key business outcomes and performance. Organisations within the banking industry must refocus their efforts on increasing employee engagement and retention by creating an environment where an IT professional will be driven through feeling valued and being offered an opportunity to apply and increase their functional knowledge and skills. This study aims to highlight the dimensions or drivers of work engagement critical to improve employee intention to stay, leading to greater organisational success in terms of financial and nonfinancial parameters.

2 Chapter 2: Literature review

2.1 Introduction

In chapter 1, a brief overview was provided on the importance attached to the engagement construct as a driver to not only organisational success, but also a key contributor impacting an employee's intentions to stay or leave an organisation. According to Kahn (1990), an employee's level of engagement involves employees expressing themselves through his or her work and other job related activities. Engagement is, therefore, for various reasons viewed as a pertinent concept to ensure employee well-being (Rothmann & Jordaan, 2006). Firstly, engagement is strongly associated with key constructs associated with positive organisational outcomes, including motivation, job satisfaction, and lower turnover intentions (Bakker et al., 2003b; Schaufeli & Bakker, 2004). Secondly, Sonnentag (2003) emphasised the significant relationship between work engagement and constructive organisational behaviours, including personal initiative and learning. Finally, engaged employees also tend to show higher levels of commitment towards their job, according to Blizzard (2002), in relation to disengaged employees that typically exhibit lower levels of organisational commitment.

The following chapter aims to conceptualise the theoretical constructs of work engagement and turnover intentions through a literature review of existing academic literature available on the subject. An overview of the various definitions of work engagement will be supplied, supported by a synopsis of the key drivers and supporting engagement models referenced within the most recent published literature on work engagement. Turnover intentions as a business imperative will also be explored, including a summary of the key drivers impacting turnover intentions as referenced in popular literature. Chapter 2 will conclude by exploring the relationships between the variables of interest, with specific emphasis placed on understanding the link between and bearing of specific job demands and job resources on work engagement and subsequent turnover intentions of employees.

2.2 Work engagement

2.2.1 Work engagement origins in positive psychology

Positive psychology is viewed as an emerging approach within the industrial psychology field, gaining increasing attention due to the proposed shift from a traditional focus on human

weaknesses and malfunction, towards a more constructive emphasis on the strengths and optimal functioning of humans (Seligman & Csikszentmihalyi, 2000). Schaufeli and Bakker (2003) considered this approach a supplement to the more traditional focus on psychopathology, disease, illness, disturbances and malfunctioning prevalent within the psychology field. This change in approach to concentrate on the optimal functioning of individuals has also influenced the industrial psychology field, as attention is increasingly focused on the concept of positive organisational behaviour. Luthans (2002, p. 698) has defined this positive approach as "the study of positively orientated human resource strengths and psychological capacities that can be measured, developed, and effectively managed for performance improvement in today's workplace". Positive psychology, therefore, intends to gain a deeper understanding of and develop the specific factors assisting individuals to prosper. According to Gable and Haidt (2005), positive psychology can be defined as the study of human happiness: the conditions and processes that contribute to the flourishing or optimal functioning of people, groups, and institutions.

The intention of the positivist approach is to re-direct the focus of the traditional psychology field towards the building of positive qualities and valued subjective experiences reflected in the individual's experiences of well-being, contentment, and gratification (with the past), hope and optimism (for the future), and flow and happiness (during the present). According to Seligman and Csikszentmihalyi (2000), positive psychology is characterised by positive traits at an individual level, including the capacity to appreciate yourself and others, courage, interpersonal skill, perseverance, compassion, future mindedness, spirituality, insight and talent potential. At a group level, positive psychology is reflected by civic qualities and organisations that encourage enhanced citizenship behaviour in individuals, exhibited through an increase in the levels of responsibility taken, altruism and civility exhibited, tolerance and work ethic.

With the emergence of positive psychology, Seligman (2003) and Seligman and Csikszentmihalyi (2000) highlighted the increase in attention afforded to the concept of work engagement in the field of occupational health psychology (Schaufeli & Salanova, 2007). From a positive psychology perspective, Schutte et al. (2000) defined work engagement as an energetic state during which the employee is dedicated to excellent performance at work and shows confidence in his or her effectiveness in performing his or her allocated duties. From a theoretical perspective, Quiñones, Van den Broeck and De Witte (2013) further underscored work engagement's contribution to the field of positive psychology by not only increasing the knowledge of the health-promoting potential job and personal resources can offer, but also how these resources increase optimal functioning of individuals through work engagement. From a practical perspective, Bakker et al. (2008) emphasised work engagement's relevance to

organisations and practitioners due to its link with employee performance and other constructive indicators (i.e. extra-role behaviour and affective commitment).

According to Saks (2006), the work engagement construct is related to, but distinct from, similar constructs associated with organisational behaviour. A literature review conducted by Schaufeli and Salanova (2007) emphasised a positive relationship between work engagement and constructs related to mental and psychosomatic health, intrinsic motivation, efficacy beliefs, positive attitudes towards work and the organisation, and high performance. It is, therefore, not surprising that the work engagement construct and three supporting dimensions of vigour, dedication and absorption, is presumed to be a strictly positive and relatively stable indicator of occupational well-being, according to Schaufeli et al. (2002). Markos and Sridevi (2010) describe the relationship between the work engagement construct and earlier concepts related to organisational commitment, job satisfaction, job involvement and organisational citizenship behaviour. Whereas previous positive approaches (i.e. the humanistic approach) were mainly unempirical in nature, the current positivist approach is viewed as more empirical. This ultimately necessitated the careful operationalization of work engagement as a key construct in the positive psychology movement (Schaufeli & Bakker, 2003).

2.2.2 Defining work engagement

Employee engagement is a vast construct, according to Markos and Sridevi (2010), forming an integral part of human resource management within organisations. Perrin's Global Workforce Study (2003) refers to employee engagement as the reflection of an employee's willingness and ability to assist the company in reaching their goals through the application of discretionary effort. According to the Human Capital Institute (2011), employee engagement is defined as the extent to which individuals are satisfied with their work, feel appreciated by the organisation, and display a positive attitude and commitment towards their employer to ensure future organisational success. Employee engagement is defined as a commitment to the job, manager, team and organisation, which drives effort and intent to stay, resulting in improved performance and retention. Employees with high engagement levels will exhibit a stronger awareness of the business context and actively work with their colleagues to improve on-the-job performance to the benefit of the organisation (Robinson et al., 2004). Engaged employees are, therefore, emotionally attached to their organisation and highly involved in their jobs, according to Markos and Sridevi (2010), exhibiting great eagerness to contribute to the success of their employer by going beyond their employment contract.

Although the employee engagement construct is related to earlier concepts like job satisfaction, employee commitment and organisational citizenship behaviour, Markos and Sridevi (2010) are of the opinion that employee engagement has a broader scope. Organisational commitment is defined by Mowday, Porter and Steers (1982) as the perceived strength of an individual's identification with and involvement in a specific organisation. Dernovsek (2008) associated employee engagement with the employee's positive emotional attachment and commitment to an organisation. Saks (2006) clearly defined differences between the constructs of organisational commitment and engagement. Where organisational commitment refers to the individual's attitudes and organisational attachment, engagement is related to the degree to which individuals are focused on their work and performance within their job.

Job satisfaction and employee engagement are also viewed as related but different constructs. The ADP Research Institute released a white paper in 2012 confirming the importance but distinct differences between these two constructs. Both job satisfaction and employee engagement provide valuable and actionable insights into an organisation's workforce. Job satisfaction generally refers to the employees' emotions or feelings about their job and work conditions (including remuneration, benefits, work environment and perceived opportunities for career development). In contrast, employee engagement is a measurement of the amount of discretionary effort an employee is willing to impart towards their organisation, ultimately providing an indication of the employee's commitment and perceived attachment to their work.

According to Kular, Gatenby, Rees, Soane and Truss (2008), job involvement can also be differentiated from the engagement construct due to its focus on how employees apply themselves during the performance of their job related tasks. Job involvement is also focused on cognitions, while engagement includes an individual's emotions and behaviours. The scope of employee engagement is also wider than purely voluntary or organisational citizenship behaviour and rather addresses an individual's formal role performance, according to Saks (2006). Saks (2006) also associated employee engagement with the attitude, intentions and behaviour of individuals. Schaufeli and Bakker (2004) were of the opinion that an engaged employee is likely to be more attached to his or her organisation, and tends to demonstrate a lower propensity to leave. This view is supported by Du Plooy and Roodt's (2010) study finding a negative relationship between engagement and employee turnover intentions. Employee engagement, therefore, increases the employee's emotional bond with an organisation and ultimately contributes to greater employee retention.

Work engagement is considered a more contemporary construct related to an employee's commitment and connection to their work and provides an indication of the amount or extent of

discretionary effort they are willing to expend on behalf of their employer. Work engagement is defined and operationalised as "a positive, fulfilling work-related state of mind that is characterised by vigour, dedication and absorption" (Schaufeli & Bakker, 2004, p. 295). Vigour represents the individual's positive affective response to ongoing interactions with significant elements in his or her job and work environment that includes the interrelated feelings of physical strength, emotional energy and cognitive liveliness. Vigour is characterised by high levels of energy and mental resilience during job performance, the willingness to invest effort in one's work, not being easily drained, and being persistant even in the face of adversity or challenge. Dedication is characterised by the individual's ability to derive meaning or significance from his or her work through enthusiasm, being proud of and feeling inspired and challenged by one's work. Absorption refers to a satisfactory state of complete immersion in your work, characterised by focused attention, time distortion, a loss of self-consciousness, effortless concentration, complete control, and intrinsic gratification (Storm & Rothmann, 2003).

Bakker et al. (2008, p. 188) describe work engagement as "a positive, fulfilling, affective-motivational state of work-related well-being". According to Schaufeli et al. (2002), work engagement is a more persistent and persuasive affective-cognitive state and is not focused on any particular object, event, individual or behaviour. Work engagement is viewed as more stable than work-related emotions (i.e. contented, enthusiastic, cheerful, etc.), but less stable than personality traits (e.g. the Big Five). Work engagement is, therefore, considered a work-related disposition (Schaufeli & Salanova, 2007) associated with an individual's attitudes, intentions and behaviour (Saks, 2006). Engagement is ultimately the result of and is impacted by various emotional and rational influences related to work and the overall organisational experience.

Work engagement is the reflection of the individual's involvement, satisfaction with and enthusiasm towards his or her job. Employees that are highly engaged tend to experience high energy levels and a strong identification towards their work (Bakker & Demerouti, 2008; Bakker et al., 2008). Employees with high levels of engagement would be willing to function beyond their core responsibilities outlined by a job description, and will apply innovative and "out-of-the-box" thinking in an effort to move their organisations forward, according to Markos and Sridevi (2010). These perspectives emphasize the importance for organisations to ensure employees are provided with meaningful work that contributes to personal fulfilment and motivation Coetzer & Rothmann, 2007a). Spreitzer, Kizilos and Nason (1997) were of the opinion meaningful work will enable higher levels of employee motivation and personal growth, in turn contributing to increased employee empowerment and involvement. Organisations should,

therefore, actively strive to develop and foster work engagement through a collaborative relationship between the employer and employee.

2.2.3 Theoretical models of work engagement

As an organisation is characterised by its own unique dynamics, structure and culture, every organisation should strive to understand through research what specific engagement drivers are relevant to their own environment. Previous research on employee engagement has attempted to identify the most significant drivers of engagement with resulting models to illustrate implications to management (Markos & Sridevi, 2010). Although the engagement construct overlaps with earlier concepts related to employee and organisational commitment, job satisfaction, job involvement and organisational citizenship behaviour, there are still significant differences between these various constructs. By taking the perspectives of existing literature on the most significant drivers of employee engagement into consideration, researchers are continuing to develop theoretical models of engagement in an attempt to gain greater insight into and understanding of the construct and the potential impact on organisations.

The Towers Perrin Talent Report (2003) identified the top ten workplace characteristics resulting in employee engagement. Listed in order of importance in Figure 2.1, these characteristics include the following key elements:

- The interest shown by senior management in employee well-being.
- The opportunity to do challenging work.
- Decision-making authority.
- Evidence of the organisation focusing on the client.
- Opportunities for career advancement.
- The organisation's reputation as a good employer.
- A collaborative work environment where team work is supported and rewarded.
- Sufficient access to resources to complete allocated tasks.
- Input into decision-making.
- A clear vision and direction from management.

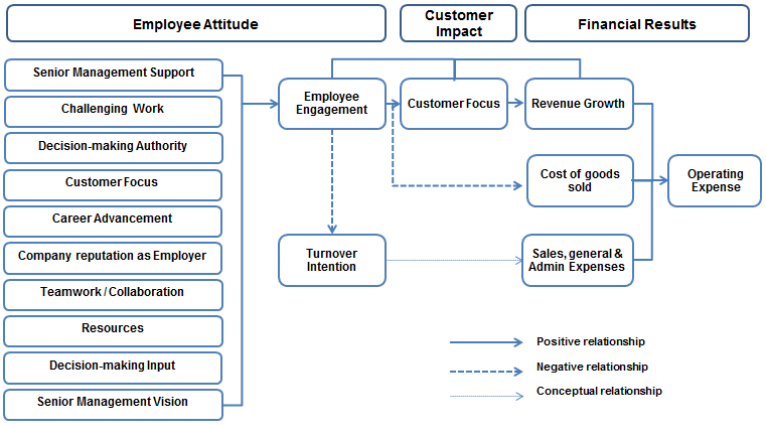

Figure 2.1: Towers Perrin Talent Report (2003) of workplace characteristics

The employee engagement model of Robinson et al. (2004) defines the importance of employees experiencing feelings of being valued and involved as key drivers of employee engagement. According to Figure 2.2, this engagement model highlights the constructs of job satisfaction, family friendliness, cooperation, health and safety, pay and benefits, equal opportunities and fair treatment, communication, performance appraisals, immediate management, training, development and career as the key employee engagement drivers contributing to an individual's feeling of value and being involved.

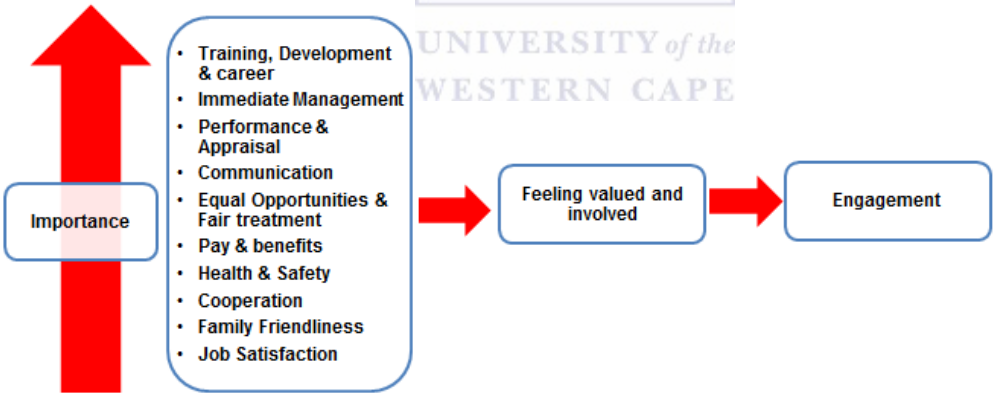

Figure 2.2: Robinson et al. (2004) employee engagement model

The Charted Institute of Personnel and Development (CIPD) developed a model of employee engagement (2006) representing the specific constructs that contribute to engagement, including the inter-relationship between the various constructs as illustrated in Figure 2.3. Working life is defined as the working hours, pay, roles and responsibilities allocated to an employee. The constructs of management, leadership and communication are related to an employee's view of the organisation's management, including the level of trust and transparency within the system. An employee's work attitude is related to job involvement, commitment, loyalty and well-being. Communication is, however, highlighted as a top priority

for organisations dealing with employee engagement. By providing employees with an opportunity to voice their views and opinions to management and keeping them updated with organisational progress, organisations are applying the single most important driver of engagement. According to the CIPD model (2006), employee engagement comprises of three engagement types, including cognitive, emotional and physical engagement. Individual performance or outcomes are the subsequent result of an employee's attitudes at work and level of engagement.

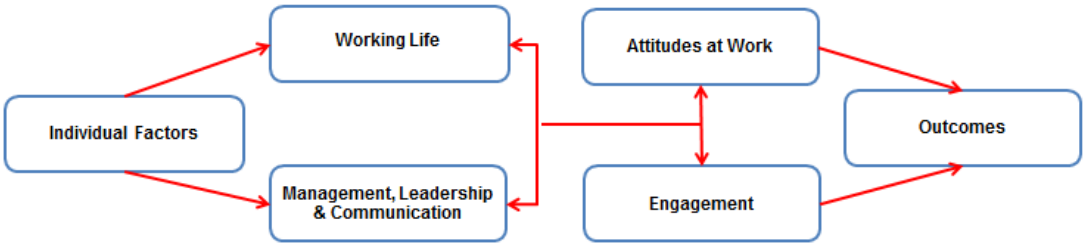

Figure 2.3: CIPD (2006) model of employee engagement

Penna's (2007) model of hierarchy emphasised the potential meaning of work in assisting to strengthen the relationship between employees and their employers to the benefit of both parties (Figure 2.4). Employees will find meaning at work by experiencing a sense of belonging and being offered an opportunity to contribute to their team and organisation. Markos and Sridevi (2010) confirmed that employees want to be part of and work for a company in which they experience a sense of meaning. Penna's (2007) model resembles Maslow's hierarchy of needs and Herzberg's motivational theory, with the basic needs including the constructs related to pay, working hours and benefits. According to Markos and Sridevi (2010), employees will first focus on addressing their needs related to pay and benefits before aspiring to further learning, development and leadership opportunities. Once an employee attains an acceptable level of satisfaction at all the lower levels, they will strive to find meaning at work.

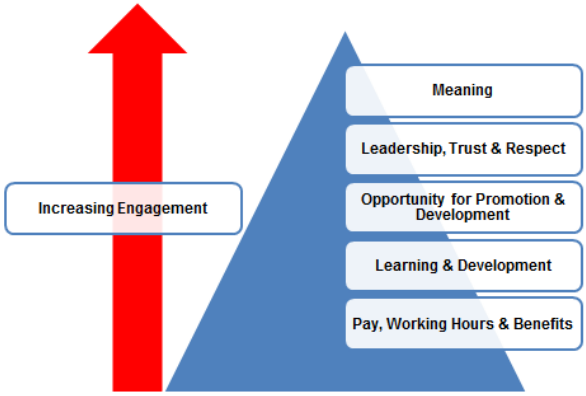

Figure 2.4: Penna's (2007) model of hierarchy

Gallup's Engagement Hierarchy (2011) addresses an individual's need for belonging as it relates to the relevant outcomes of inviting, serving and giving life satisfaction. According to Figure 2.5, the model is divided into four sections:

- What do I get? This is the "basic needs" section or elementary need for an individual to receive something of value, including helping the employee understand the expectations of them, and what tools will be required to perform their job. This basic need forms the foundation of an organisation an employee is committed to.
- What can I give? This refers to the "management" section, addressing the innate need of individuals to have access to a person supporting their work or providing regular feedback and recognition.
- "Do I belong?" This section refers to "team work" and reflects an individual's sense of belonging to an organisation and feelings of being valued.
- "How can we grow?" The "growth" section refers to an individual's need to learn and grow, and includes discussing progress within the organisation in the last six months.

Figure 2.5: Gallup's (2011) Engagement Hierarchy

Based on the engagement research to date, Venkatesh (2013) proposed a revised model of the employee engagement construct by including a consolidation of engagement drivers. This engagement model included six constructs that drive employee engagement, as illustrated in Figure 2.6.

Figure 2.6: Venkatesh's (2013) revised model of employee engagement

According to Venkatesh (2013), the main drivers of employee engagement are related to the constructs of:

- Job content: The structure of tasks within a job to allow for autonomy, challenge and scope of learning.
- Work-life balance: Allowance to spend time with family and pay attention to personal responsibilities.
- Supervisor-employee relations: Management approachability and support and access to a supporting work environment.
- Scope for advancement: Availability of policies and procedures supporting employee career growth, including career paths and sufficient career progression opportunities.
- Team relations: Trust, collaboration, support and approachability within and across the teams.
- Recognition: Processes and practices related to recognition and showing appreciation for employees.

Rothmann and Rothmann (2010) are, however, of the opinion that individuals rely on their specific physical, emotional and mental resources to complete work-related tasks when engaging themselves at work. Bakker et al. (2008) regard job and personal resources as key factors associated with employee engagement. Therefore, much of the research on work engagement has utilised the Conservation of Resources (COR) model (Hobfoll, 1989) and Job Demands-Resources (JD-R) model (Demerouti, Bakker, Nachreiner & Schaufeli, 2001b) to study and understand the factors associated with work engagement.

The COR model (Hobfoll, 1989) is considered a relevant model for gaining a deeper understanding of the effects of job resources (or lack thereof) on employees. The COR model is based on the premises that people will attempt to obtain, retain and defend what they deem of value. According to Bakker and Demerouti (2007), resources are valued in their own right or these resources are viewed as a means of achieving or protecting other valued resources. The COR model further postulates that personal resources influence each other and exist as a resource pool (Hobfoll, 1989). The expansion of one resource is often associated with another resource being improved.

The JD-R model is frequently applied as theoretical framework for the study of work engagement (Demerouti et al., 2001b), which comprises and extends to two well-known psychosocial job stress models (Bakker & Demerouti, 2007), including the job-demands control (JD-C) or demand-control-support (DCS) model (Johnson & Hall, 1988), and the effort reward imbalance (ERI) model (Siegrist, 1996). Demerouti et al. (2001b) developed the JD-R model (as depicted in Figure 2.7) based on the assumption that two underlying psychological processes play a significant role in ensuring the welfare of individuals: an effort driven process in which disproportionate job demands and an absence of job resources contribute to levels of distress, and a motivation-driven process in which job resources lead to work engagement (Demerouti et al., 2001b).

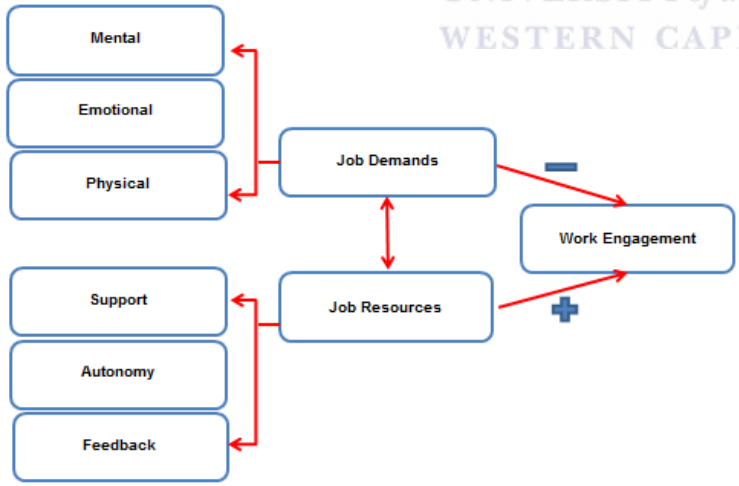

Figure 2.7: The Job Demands-Resources (JD-R) model

Even though every job may have its own specific work characteristics associated with the employee's sense of well-being, Rothmann, Mostert and Strydom (2006) were of the opinion that these work characteristics can be grouped in two broad categories, namely job demands and job resources. Job demands is characterised by features of the job that could potentially contribute to strain in instances where the employee's adaptive capability is surpassed

(Rothmann et al., 2006). Job demands include the physical, social and organisational aspects of a job that require continued physical and/or psychological effort on the part of the employee. It is, therefore, associated with a certain psychological and/or physical cost (Schaufeli & Bakker, 2004). Empirically, Fourie, Rothmann and Van de Vijver (2008) have found a negative relationship between work engagement and job demands. Job resources are related to the extent to which the job offers assets or opportunities to individual employees. The job resources include physical, psychological, social or organisational aspects of the job that (i) lessen the job demands and related physiological and psychological costs, (ii) are practical in achieving work goals, and/or (iii) stimulate personal growth, learning and development (Demerouti et al., 2001b). Job resources can, therefore, either play a fundamental motivational role through employee development, growth and learning, or an extrinsic motivational role by assisting employees in achieving work related goals (Schaufeli & Bakker, 2004).

Bakker (2011) further elaborated on the JD-R model (see Figure 2.8) by assuming that both job resources (i.e. autonomy, performance feedback, social support and supervisory coaching) and personal resources (i.e. optimism, self-efficacy, resilience and self-esteem) are strong predictors of work engagement (Bakker et al, 2008), especially in the presence of high job demands (i.e. work pressure, emotional demands and physical demands), according to Janse van Rensburg, Boonzaier and Boonzaier (2013). Job and personal resources initiate a motivational process that leads to worker engagement and job performance. According to Bakker (2011), highly engaged and performing employees are able to create their own resources to further foster engagement and improve their performance. This process of actively altering or influencing their work environments and job characteristics is referred to as job crafting. Tims, Bakker and Derks (2012, p. 173) defined job crafting as the "self-initiated changes that employees make in their own job demands and job resources to attain and/or optimise their personal (work) goals".

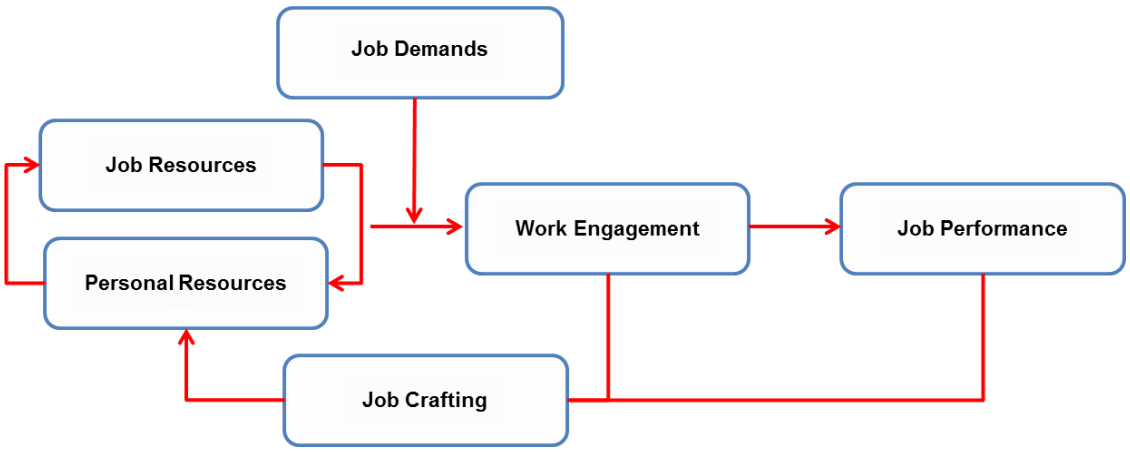

Figure 2.8: Bakker's (2011) evidence based model of work engagement

Job resources are also considered a crucial element for ensuring employee retention, according to De Braine and Roodt (2011). Rothmann and Jordaan (2006) reported empirical evidence specifying that job resources are able to shield individuals and organisations from the potential negative impact of job demands on burnout. De Lange, De Witte and Notelaers (2008) found that low levels of work engagement, job autonomy and departmental resources predicted employees' intentions to leave their employer and transferring to other companies, providing an indication of the employees' turnover intentions. When the external environment presents a lack of required resources, the individuals are not able to reduce the potential negative influence of high job demands to achieve their work goals and develop themselves (Rothmann et al., 2006).

In an attempt to reduce discomfort or job stress associated with a lack of resources, employees will strive to achieve equity without further negative personal consequences by reducing their discretionary efforts (Rothmann et al., 2006). According to Nelson and Simmons (2003, quoted in Rothmann et al., 2006), negative psychological experiences (i.e. distress) or positive psychological experiences (i.e. eustress) could be expected as a result of the employee's perceptions of job demands and resources within the organisation. Organisations characterised by high demands and low resources are generally considered stressful environments to operate in, whereas organisations within high demands and resources tend to be considered challenging, according to Jackson and Rothmann (2005).

2.2.4 Drivers of work engagement

According to Bakker et al. (2008), engagement focuses on the employee's experiences of work activity. Although each job type has its own set of work characteristics, Balducci, Fraccaroli and Schaufeli (2011) recommend applying the JD-R model as a conceptual framework in all occupational settings to study the drivers associated with work engagement. The JD-R model postulates that although every job may have specific work characteristic associated with well-being, it is possible to model these characteristic in two broad categories (Demerouti et al., 2001b) or sets of variables (Schaufeli & Bakker, 2004), referred to as job demands and job resources.

Job demands was defined by Jones and Fletcher (1996) as the extent to which the environment in which the employee is working contains stimuli requiring immediate attention and response. Quantitative job demands refer to the amount of work required of and timeframe afforded to an individual, while qualitative job demands encompassing employees' affective responses to their

jobs (Coetzer & Rothmann, 2007a). Job demands can also include situational factors such as role ambiguity, role conflict, stressful events, heavy workload and work pressure, pressure to make critical and immediate decisions, being assigned more responsibility, and a requirement to meet specific deadlines, according to Rothmann (2003).

In contrast, job resources encompasses the physical, psychological, social and organisational aspects of the job that can lead to a reduction in job-related demands and associated physiological and psychological costs, are considered useful in achieving work goals, and stimulate personal growth, learning and development (Schaufeli & Bakker, 2004). According to Rothmann and Joubert (2007), job resources include social support (including support from managers and colleagues), job enhancement opportunities characterised by increased control and autonomy, participation in decision-making, recognition, and opportunities for advancement and reward (Rothmann, 2003). Job resources can be defined at various levels, including task (i.e. performance feedback), work (i.e. role clarity, participation in decision-making), interpersonal and social (i.e. support from colleagues and/or management, team climate), and organisational (i.e. supervisory coaching, salary, career opportunities, job security) levels. Job resources seem to increase work engagement, according to Coetzer and Rothmann (2007a). Rothmann et al. (2006) developed a questionnaire to identify the most prevalent job demands and job resources as hypothesised in the JD-R model. Based on this research, it was found that job demands and job resources consist of five factors, including overload, growth opportunities, advancement, organisational support, and job security/insecurity.

2.2.4.1 Overload

Belonging to the job demands category, the first factor identified by Rothmann et al. (2006) was defined as overload, and includes physical, cognitive and emotional load related to time pressure (pace of work), attentiveness to many things at the same time (amount of work), and mental and emotional load (dealing with power struggles). Depending on the job context, Van den Broeck, Vansteenkiste, De Witte and Lens (2008) are of the opinion that the category of job demands can contain job characteristics as varied as task interruptions, workload, work-home interferences, organisational changes, and emotional dissonance (e.g. Bakker, Demerouti, Taris, Schaufeli & Schreurs, 2003c). Van den Broeck et al. (2008) also highlighted several studies providing evidence that job demands are not only related to burnout (i.e. Bakker, Demerouti, De Boer & Schaufeli, 2003a; Bakker, Demerouti & Schaufeli, 2005b), but could predict burnout over time (Hakanen, Schaufeli & Ahola, 2008) and across different professions, sectors and countries (Bakker & Demerouti, 2007). Job demands, therefore, contribute to the

occurrence of burnout, which in turn might impact on the work engagement levels of employees (Schaufeli & Bakker, 2004).

In an attempt to provide potential reasons for some job demands leading to positive outcomes and others to negative outcomes, Van den Broeck, De Cuyer, De Witte and Vansteenkiste (2010) further emphasise the importance of differentiating between challenging and hindering job demands. Although challenging job demands (i.e. time pressure or workload) require extra effort to meet, these demands are significantly and positively related to work engagement (Sonnentag, 2003). As employees will typically experience personal gain and growth when they prevail and address these demands, employees tend to react positively to these demands (Tims, Bakker & Derks, 2013). Hindering job demands, in contrast, are experienced as stressful as they unnecessarily impede personal growth and goal attainment, thereby hindering optimal functioning (LePine, Podsakoff & LePine, 2005). Employees will at first endeavour to withstand the hindering demands, including investing more resources. As these demands are associated with negative emotions, employees tend to withdraw from work or decrease the speed of work (Schaufeli & Taris, 2005).

Although job demands may not necessarily always be negative in nature, an employee might experience an increase in job-related stress when higher effort is required to meet the demands. Individuals could also perceive workload as excessive when they lack the skills, abilities and support required to meet the stated demands. Maslach (1993) was of the opinion that job demands place a drain on the employee's energy levels, leading to the employee withdrawing mentally in an attempt to cope with the resulting exhaustion. Job demands are, therefore, associated with high costs that elicit negative responses such as depression, anxiety and burnout, according to Schaufeli and Bakker (2004), leading to a subsequently decrease in the employee's work engagement levels.

2.2.4.2 Growth opportunities

Belonging to the job resources category, the second factor identified by Rothmann et al. (2006) was growth opportunities, and relates to the availability of and access to enough variety of work, opportunities to learn and independence in work practices. Kular et al. (2008) link high levels of engagement to roles characterised by the prevalence of challenge, authority, autonomy, stimulation, and access to information, resources and growth opportunities. By providing employees with optimal challenges, feedback and freedom in their work, intrinsic motivation is created leading to an increase in work engagement (Ryan & Deci, 2000).

According to Coetzer and Rothmann (2007a), positive feedback seems to contribute to an increase in work engagement levels, whereas negative feedback has a diminishing impact on levels of engagement. Employees will be more engaged in their work if the work is regarded as not only challenging, but if they are also afforded the opportunity and freedom to function independently in the execution of the work tasks (Coetzer & Rothmann, 2007a).

Lumley et al. (2011) state specific job characteristics can contribute to the individual's understanding of the meaning of their work, increasing feelings of responsibility and knowledge of work which contribute to job satisfaction. Job characteristics related to skills variety and job autonomy are important determinants of organisational commitment, according to Döckel (2003). According to Hackman and Oldham's theory of job design (1976, quoted in Hollyforde & Whiddett, 2002), skills variety is defined as the level to which the successful functioning in a job requires variety in activities, application of various skills and the personal talents of employees. Tasks that challenge and stretch an employee's skills and abilities are viewed as meaningful to the employee. Jobs that require the application of various skills will have personal meaning to the employee, according to Marx (1996, as cited in Döckel, 2003), even if organisational significance or importance is lacking.

Job autonomy is defined as an increased feeling of personal responsibility through the degree of freedom, independence and discretion an individual is allowed in planning their work and deciding the procedures to be used in doing their job. According to Marx (1996, cited in Döckel, 2003), employees will evaluate work success in terms of their own efforts, initiatives and decisions when job autonomy is high, rather than attributing the success to following management instructions or a specific organisational procedure. Job autonomy is supported in organisations with an overall management philosophy emphasising the importance of nurturing and investing in human resources to ensure commitment. This type of organisation will view employees as valuable assets that can contribute to organisational competitive advantage through their commitment, trust, adaptability, and quality of skills and knowledge. To ensure employees continue to contribute towards organisational competitive advantage, it is important to increase the employees' sense and feelings of empowerment by providing greater discretionary power.

Employee empowerment is defined as the measure of an individual's belief in their own ability to not only complete tasks and reach goals, but also to influence their work. Spreitzer (1996) provides a differentiation between the concepts of psychological empowerment and situational empowerment. Psychological empowerment is related to an employee's belief in their ability to shape and provide direction to their work, leading to effectiveness and innovative behaviour.

The research of Kular et al. (2008) also highlighted the importance of empowerment as employees want to be involved in decision-making that have an impact on their roles and responsibilities. Leaders and managers within highly engaged organisations actively strive to create a trusting and challenging environment where employees are willing and able to express their views, provide input and innovate to contribute to the organisation moving forward. Organisations that support employee empowerment are directly associated with greater innovation and competitive advantage.

2.2.4.3 Advancement

Rothmann et al. (2006) identified advancement as the third factor focusing on the individual's perceptions of reward, promotion (career possibilities), financial progress (remuneration) and training opportunities offered by an organisation. Roberts and Davenport (2002) were of the opinion that the employees' identification with the organisation, career development, and experiences of a rewarding work environment also increase the levels of employee work engagement. When individuals identify with an organisation, they share in the organisation's success and will be motivated to deliver quality work. Expanding on this concept, organisational commitment is defined by Mowday et al. (1982) as the perceived strength of an individual's identification with and involvement in a specific organisation. Gbadamosi (2003) was of the opinion an individual's favourable attitudes towards an organisation can lead to greater acceptance of the organisational goals and a willingness to exert additional effort on behalf of the organisation.

Employees will be more engaged in their work if it is perceived that the organisation is providing opportunities to enhance their skills and abilities, and to manage their careers. Changes in professional development opportunities are positively associated with an increase in job satisfaction. Locke and Henne (1986, cited in Little & Little, 2006) define job satisfaction as a positive emotional state that results from an individual's appraisal of their job or job experiences. Although job satisfaction is an important component of organisational commitment, it is not equivalent to it, according to Robinson et al. (2004). Job satisfaction is considered the result of an employee's opinions on and evaluation of how effective an organisation is in providing critical qualities deemed important to them (Luthans, 1998, quoted in Kotze & Roodt, 2005). Mak and Sockel (2001) viewed job satisfaction as an important motivator for employee performance, with a positive relationship to organisational commitment, job involvement and organisational citizenship behaviour, according to Little and Little (2006).

Job satisfaction can be enhanced through the provision of career development opportunities, ensuring jobs are as enjoyable as possible, and making resources available to support employee work-life balance. Research conducted by the Human Capital Institute (2011) indicated that for career development to be successful, organisations should provide a well-defined process to establish and maintain the long-term career plans for all employees, aligning their strengths and interests with organisational career goals and opportunities. By providing access to skills development, coaching and mentoring opportunities, organisations will ensure employee career growth and goals are met.

Career development is, therefore, employee-driven, manager supported and maintained by the organisation's guiding talent management strategy. Kular et al. (2008) also found career development has the ability to influence employee engagement levels by providing employees with opportunities to develop their abilities, acquire new skills and gain knowledge to ultimately realise their potential. Managers striving to create a clear career path and attainable goals, create a positive appreciation within each team member. By emphasising the employee's value, allocating responsibility and rewarding performance, a manager can impact the level of employee commitment and engagement towards the organisation. Organisations should, therefore, focus on the motivation and development of their key talent by providing clear career options and pathways that encourage the development of relevant skills.

2.2.4.4 Organisational support

The fourth factor defined by Rothmann et al. (2006) refers to organisational support, and speaks to the employee's relationship with management (managerial support) and colleagues (social support), flow of information (communication), role clarity, and participation in decision-making (the extent of work or role autonomy and control). Organisations continuously strive to retain and develop their human capital to ensure competitive advantage can be obtained and maintained. Poulin's (1995) research on job satisfaction found an organisation's work environment had a significant impact on an employee's job satisfaction and subsequent retention within a company. The prevalence of employee engagement can significantly be improved by creating an environment of shared responsibility between management and employees, according to Purcell, Kinnie, Hutchinson, Rayton and Swart (2003).

Schaufeli and Bakker (2004) linked job resources to organisational outcomes via work engagement in the so-called motivational process. Building on this premises, Bakker et al. (2008) emphasised the ability of job resources to provide either intrinsic motivation (by fostering

the employee's growth, learning and development) or extrinsic motivation (by contributing to achieving work related goals). On an intrinsic level, job resources might fulfil the basic employee needs associated with autonomy, competence, and relatedness (Ryan & Deci, 2000). Organisational support and the opportunity for growth contribute to the fostering of learning and an increase in job competence. Employee participation and autonomy imply that both organisational support and growth opportunities may, therefore, fulfil the employee's need for autonomy, according to Rothmann and Rothmann (2010). Social support afforded by management and co-workers may also fulfil a need for relatedness.

Job resources may also act as extrinsic motivator as the availability of resources (including organisational support, growth opportunities, social support, and advancement) may contribute to the employee's willingness to dedicate his or her efforts to the allocated tasks. In these environments, it is likely that the tasks will be completed successfully and work goals attained, according to Bakker and Demerouti (2008). Be it through the satisfaction of basic needs or the achievement of work related goals, the outcome will be positive and engagement is likely to occur in both instances (Schaufeli & Bakker, 2004; Schaufeli & Salanova, 2007).

To facilitate this process, Walton (1985) encouraged organisations to transform their employment practices from a focus on employee control to one of employee commitment. Organisations support employee control practices for reducing labour costs or improved efficiency by imposing strict rules and procedures in an attempt to ensure employee compliance. According to Durkin and Bennett (1999), employee commitment is an individual's mind-set that binds the individual to an organisation. Employee commitment is shaped through strategies that create specific and desired employee behaviour and attitudes by shaping a psychological link between the organisation and the employee's goals. The focus of this approach is on developing employees trusted by the organisation to apply discretion in the actioning of their task through procedures and methodologies consistent with organisational goals, according to Döckel (2003).

By providing employees with a platform and opportunity to express their opinions to management, an organisational climate is created where employee input into organisational decision making is supported. An increase in an employee's involvement in decisions impacting their job or work is, therefore, an important factor associated with increased employee engagement. At the level of a job, Paullay, Alliger and Stone-Romero (1994) define the construct of job involvement as the level of cognitive involvement and level of concern an individual exhibits towards their job. As job involvement is considered a key contributor to

employee motivation, it is important to understand how people view their jobs, the level of enthusiasm they exhibit and their ability to maintain a work-life balance. Martins and Coetzee (2007) state employee motivation and organisational culture are impacted by how employee needs and objectives are incorporated with the organisational objectives and needs, organisational work-life balance practices and the physical work environment. This will contribute to organisational commitment and employee optimism, according to Venkatesh (2013), by providing an enriching job experience and ultimately contributing towards their engagement to the job.

Work-life policies and practices include the possibility of flexible work scheduling (i.e. part-time work, flexibility with regards to start and quitting times), organisations allowing employees to take family responsibility leave to address family matters, and the availability of childcare assistance. Grover and Crooker (1995) investigated the perceived impact of work and family benefits on organisational commitment. The research showed employees with access to work-life balance policies expressed significantly greater commitment towards the organisation with a lower intention to leave their job and employer. The research of Paré, Tremblay and Lalonde (2001) indicated a negligible relationship between work-life policies and affective commitment, including a negative relationship to continuance commitment. According to Döckel, Basson and Coetzee (2006), this relationship might be attributed to individuals feeling obligated to remain with an organisation to increase investments rather than decrease work-life conflicts. Employees will, therefore, be focused on their jobs to the potential detriment of their families and own commitment to the organisation.

According to Crim and Seijts (2006), an engaged employee is an individual that is fully entrenched in and exhibits enthusiasm towards his or her job. Due to a high sense of organisational commitment, engaged employees will invest significant discretionary effort in an attempt to ensure the success of the organisation in achieving its production and performance goals (Human Capital Institute, 2011). Little and Little (2006) defined organisational citizenship behaviours as actions or discretionary behaviour exhibited by an individual beyond what is expected of them. These individual behaviours are not directly or explicitly recognised through formal organisational reward systems, according to Organ (1988, as cited in Robinson et al., 2004), and collectively contribute to organisational effectiveness. Podsakoff, MacKenzie and Bommer (1996) confirm organisational citizenship behaviour's positive relationship to the constructs of job satisfaction and organisational commitment.

Organisational citizenship behaviour is the combination of an employee's voluntary and involuntary behaviour to assist their co-workers and the organisation, according to Saks (2006).

Robinson et al. (2004) identify within their study the key behaviours believed to be associated with high levels of employee engagement. These employee behaviours include a belief in the organisation, a focus on continuous improvement, gaining a better understanding of the wider organisational context, showing respect for and providing assistance to colleagues, exhibiting the willingness to exert additional effort, and keeping updated with developments within their field of interest.

2.2.4.5 Job security/insecurity

The fifth and final factor identified by Rothmann et al. (2006) is job security, and reflects the respondents' perceptions about the future, including being secured in keeping their current jobs and job levels in the next year. According to Lui, Wang, Lu, Du and Bakker (2014), rapid organisational changes associated with practices such as outsourcing, mergers, downsizing and restructuring contribute to a marked increase in employees' experiences of job insecurity in the workplace. Job insecurity is defined as the amount of uncertainty an individual experiences about his or her job continuity (Sverke, Hellgren & Näswall, 2002), which has been shown to greatly affect employees' attitudes and behaviors (Sverke et al., 2002). According to Silla, De Cuyper, Gracia, Peirò and De Witte (2009), job insecurity refers to the employees' perceptions and concerns about the potential for involuntary job loss, with potential negative effects on both the individual (Barling & Kelloway, 1996; De Witte, 1999; Hellgren & Sverke, 2003) and the organisation (Borg & Elizur, 1992; Rosenblatt, Talmud & Ruvio, 1999).

At an individual level, Barling and Kelloway (1996) were of the opinion job insecurity could be regarded as a classic work stressor with the expectation that continued exposure to a level of insecurity would lead to impaired psychological and physiological health. Job insecurity could also have consequences for the organisation. Studies by Ashford, Lee and Bobko (1989) and Brockner, Tyler and Cooper-Schneider (1992) found increased job insecurity were linked with a decrease in organisational commitment or loyalty (i.e. affective attachment to the organisation) and an increase in the intention to leave the organisation. With an increase in fear of job loss, individuals tend to become less attached to their employing organisation, according to Barling and Kelloway (1996), and will be more open to the possibility of seeking other more secure employment opportunities.

Bosman, Rothmann and Buitenbach (2004) were of the opinion that increased job insecurity (as a stressor) will be associated with increased levels of burnout and decreased levels of work engagement. As work engagement is considered a significant factor under conditions of great

uncertainty (Macey & Schneider, 2008), it is expected that highly engaged employees will exhibit a stronger need to alter or change the task and relational boundaries of their jobs in environments with high job insecurity in an attempt to reduce uncertainty and to provide a better fit with their specific values and needs, according to Lui et al. (2014). Bakker, Albrecht and Leiter (2011) suggest work engagement could affect work-related outcomes through job crafting, especially in highly uncertain environments. Berg, Wrzesniewski and Dutton (2010b) contended that contextual factors, including alleged work place problems or constraints, could be treated as challenges requiring employees to undertake greater efforts in job crafting.

Job crafting is an approach followed by employees to independently modify aspects of their job to improve the fit between the job characteristics and their own needs, abilities and preferences, according to Berg, Dutton and Wrzesniewski (2008). Tims et al. (2013) are of the opinion that work engagement and job satisfaction may increase as a consequence of job crafting as employees can shape their job demands and resources to meet their own individual preferences and needs. Furthermore, Berg, Grant and Johnson (2010a) found that job crafting has a positive impact on an employee's degree of psychological well-being, work engagement and performance (Tims et al., 2012), proposing that job crafting leads to various key individual and organisational outcomes, including the experience of positive meaning and sense of self, engagement, commitment, turnover, and performance. Work engagement may, therefore, be an important outcome of job crafting (Tims et al., 2012).

2.2.5 Consequences of work engagement

Due to significant changes in the global economy, organisations are obligated to re-assess their people strategies due to the impact of new technologies, demographical changes and marketplace realities. Rothmann and Joubert (2007) are of the opinion that employees are expected to invest more in terms of time, effort, skills and flexibility within the context of diminishing job security, career opportunities and lifetime employment. Although new strategies are implemented in response to these changes, it is important that individual performance and organisational success are maintained, according to Haid and Sims (2009), through the introduction of processes to measure and improve employee engagement. Kahn (1990) suggests high engagement levels contribute to both positive outcomes for individuals (e.g. quality of work and increased experience while doing the work) and organisations (e.g. increase organisational growth and productivity).

On an individual level, work engagement is viewed as a positive experience in itself, according to Schaufeli et al. (2002). Contemporary research on engagement has shown a link between employee engagement and the experience of positive emotions (Schaufeli & Van Rhenen, 2006). A study by Cropanzano and Wright (2001) associated happy people with a greater sensitivity to work opportunities, being more outgoing and helpful towards others, and perceived higher levels of confidence and optimism. In an organisational context, Fredrickson and Losada (2005) showed that managers experiencing higher levels of positive to negative emotions during business meetings tend to not only ask more questions, but their range between questioning and advocacy is broader, resulting in better performance. It is important, according to Coetzer and Rothmann (2007a), for managers to encourage work engagement as disengagement is considered central to challenges associated with employees' lack of commitment and motivation (Aktouf, 1992).

Demerouti, Bakker, De Jonge, Janssen and Schaufeli (2001a) also relate work engagement with the employee's experiences of good health and positive affect. Bakker and Leiter (2010) indicated that good health and performance are indicative of an engaged employee. According to Bakker and Demerouti (2008), research suggests a positive relationship between engagement and health, implying that engaged workers are better able to perform. A healthy workforce is considered a more productive work force, according to De Beer (2014), and organisations have become more accustomed to the idea that the well-being of their employees impact organisational performance due to the link between health and productivity (Loeppke, Taitel, Haufle, Parry, Kessler & Jinnett, 2009). It is, therefore, expected that employees with high work engagement levels would have lower reported presenteeism-related health conditions. This can be attributed to these employees experiencing less discomfort and distraction due to the absence of health related conditions (De Beer, 2014). Recent research has, however, generally not been able to find evidence of a link between engagement and physiological indicators, including the stress hormone cortisol (Langelaan, Bakker, Schaufeli, Van Rhenen & Van Doornen, 2006).

On an organisational level, employee engagement is also linked to various business success factors. According to Haid and Sims (2009), some organisations are including engagement targets (including retention and absenteeism) into their business plans as an integral component to the "people" measure within an organisation's balanced scorecard and in managers' individual performance targets. Harter et al. (2002) confirmed the link between employee satisfaction, employee engagement and meaningful organisational outcomes. As engagement is an individual-level construct, it must first impact individual-level outcomes before leading to significant business results, according to Kular et al. (2008).

Organisational commitment is widely recognised as a valuable contributor to business success. Work engagement is positively related to organisational commitment (Demerouti et al., 2001a) and is expected to impact employee performance, according to Kahn (1990). Döckel (2003) viewed organisational commitment as a unique contributor to predicting important outcome variables associated with performance and withdrawal or abandonment behaviour. Lumley et al. (2011) commented on the general assumption that employee/organisational commitment reduces abandonment behaviour (including tardiness and turnover). Commitment does, however, differ from motivation or general attitudes due to its independent impact on behaviour.

According to Robinson et al. (2004), organisations taking responsibility and decisive action to create commitment appreciate commitment as a vital contributor to business success. As employees with high levels of engagement understand the value of creating a positive client experience, their drive to deliver products and services of high quality will be the result of their organisational commitment. An organisation promoting a safe and supportive work environment will also traditionally be concerned with the needs and emotions of their employees, strive to provide positive feedback and encourage them to express their concerns, according to Deci and Ryan (1987). Commitment, therefore, contributes to positive organisational outcomes through increased employee performance.

Work engagement has also been recognised as a significant contributor to several positive outcomes in terms of employee performance (Coetzer & Rothmann, 2007a). Employee engagement is defined as the rational, emotional and motivational state that drives higher levels of performance in employees. Engagement has an impact on the mind-set of employees, according to Crim and Seijts (2006), reflected in engaged employees showing confidence that their knowledge, skills and abilities are making a difference in the organisation and contributing to business success. Crim and Seijts (2006) considered the employees' confidence in both themselves and others as a significant indicator of behaviour and resulting performance. Sanborn and Oehler (2013) emphasise engaged employees show a deeper understanding of their own roles and responsibilities in relation to the organisational objectives. Engaged employees are enthusiastic and will be willing to exhibit additional effort beyond the scope of their job to address their significant desire to be part of an organisation.

According to Spreitzer et al. (1997), meaningful work expedites employee motivation and personal growth, which contributes to employee empowerment and involvement. Engagement in meaningful work can also lead to perceived benefits from work (Britt, Adler & Bartone, 2001), including impacting customer satisfaction, loyalty, safety, productivity, profitability and employee turnover intentions (Harter et al., 2002). Thomas and Velthouse (1990) highlighted that work

perceived by employees to lack meaning is often associated with apathy and feelings of detachment from one's work. These perspectives highlight both humanistic and practical reasons for ensuring employees are offered meaningful work that contributes to personal fulfilment and motivation.

According to Schaufeli and Bakker (2004), the link between work engagement and an employee's turnover intention (the intention to stay or leave an organisation) is well established. Low employee engagement results in intention to leave (Firth, Mellor, Moore & Loquet, 2004; Harter et al., 2002), with a resulting potential negative effect on organisational effectiveness (Hom & Kinichi, 2001). Bothma (2011) concluded that the turnover phenomenon has significant cost and other negative consequences for any organisation (i.e. Stanz & Greyling, 2010). Organisation's inability to retain highly skilled employees can lead to various disruptive implications for the organisation, including impaired organisational functioning, service delivery and administration (Bothma, 2011). It may also contribute to the increased costs associated with the re-hiring and re-training of employees, according to Roodt and Bothma (1997).

There are, therefore, practical and humanistic reasons why the employees' engagement levels towards their work should be a central concern for managers and organisations, according to Coetzer and Rothmann (2007a). Takawira, Coetzee and Schreuder (2014) are of the opinion that employees' level of work engagement are increasingly being recognised as an important contributor to ensuring retention of valuable and talented employees, and are seen to offer organisations a competitive advantage (Bakker et al., 2008). By identifying the determinants of employees' intention to leave, turnover behaviours could be predicted more precisely and active measures taken in advance in an attempt to prevent turnover, according to Hwang and Kuo (2006).

2.3 Turnover intentions

2.3.1 Defining turnover intentions

Turnover behaviour provides an indication of employees' voluntary movement across the boundaries of an organisation. Mensele and Coetzee (2014) define voluntary turnover as the situation where a competent and capable employee decides to terminate his or her employment with their current employer to work for another organisation. The concept of voluntary turnover focuses on predicting the ease with which an employee could leave an organisation, including understanding the reasons that drive the employee's desire to do so. According to Mallol,

Holtom and Lee (2007), traditional models of turnover still understate the construct of voluntary turnover by suggesting that people become dissatisfied, search for alternatives, compare their options with the current job, and then leave if the alternative is perceived as an improvement to the current situation.

Bester (2012) is of the opinion the concept of turnover intention is seldom clearly defined in reported studies, attributing this to the assumption that people perceive the term as self-explanatory. Bester (2012) further states turnover intention is viewed as the final step in the decision-making process before the employee makes the final decision to leave his or her workplace. Bothma and Roodt (2013) subsequently describe turnover intention as an individual's behavioural intention to leave the employ of the organisation. Lacity, Lyer and Rudramuniyaiah (2008) define turnover intention as the degree to which an employee is planning to leave an organisation. According to Mossholder, Settoon and Henagan (2005), turnover intention signifies the employee's decision to leave an organisation despite being offered the opportunity to stay. This multi-staged decision making process includes attitudinal, decisional and behavioural components (Martin & Roodt, 2008) and is considered the last sequence of withdrawal cognitions in the turnover process. Perez (2008) is of the opinion that turnover intention (the intention to stay or leave) signifies the probability an employee will quit his or her job in the foreseeable future. Although turnover intention may subsequently lead to actual turnover behaviour, Chang, Wang and Huang (2013) emphasise employee's intention to leave represents an important outcome variable.

Turnover intention is, however, not a definite and is often accompanied by job search behaviour, according to Takawira et al. (2014). Employees with turnover intentions tend to render a lower level of service which can negatively impact organisational effectiveness. Research conducted by Bothma and Roodt (2013) highlighted intention to leave an organisation as one of the indicators of turnover. From an organisational viewpoint, an increase in turnover can lead to an increase in operational costs associated with the recruitment, selection, training or employment of temporary staff (Morrell, Loan-Clarke & Wilkinson, 2004).

2.3.2 Drivers of turnover intentions

As employees are viewed as key assets impacting organisational performance and contributing to ensuring competitive advantage, organisations need to take proactive measures in an attempt to retain their employees. According to Balakrishnan, Masthan and Chandre (2013),

employee retention refers to an organisation's ability to retain their employees and involves the taking of measures to encourage employees to remain with an organisation for an extended period of time. With retention becoming an increasing concern for organisations, it is of vital importance for organisations to understand the factors driving employees' intentions to stay or leave an organisation.

Understanding the determinants of employee turnover is of significance to both the employee (thinking about leaving the organisation) and the manager (potentially faced with a lack of continuity and high replacement costs associated with recruitment, induction, training, etc.). McCarthy, Tyrell and Lehane (2007) highlighted an employee's intentions are considered the most crucial determinants of actual behaviour. Although the employee's intentions are accurate indicators of subsequent behaviour, the reasons for these intentions are often unknown. It is, therefore, imperative for organisations to determine the causes or drivers of employee turnover intentions and apply effective human resource practices and work system design to ensure effective control of turnover, according to Igbaria and Siegel (1992).

Hoonakker, Carayon and Korunka (2013) proposed the use of the JD-R model as theoretical basis for predicting turnover intentions by explaining the relationships between job demands and job stress, job resources and job satisfaction/commitment, and turnover intentions. This interaction between job demands and job resources as it relates to turnover intentions and actual turnover has been examined in two bodies of literature (Hoonakker et al., 2013), including (i) job and organisational design and job stress literature, and (ii) human resource management (HRM) literature.

(i) Job and organisational design and job stress literature

Job and organisational design and job stress literature forms the first body of literature, which focuses the attention on the specific job and organisational characteristics that may impact employees' intentions to leave their jobs. Job and organisational design literature have revealed various job demands that are positively related to turnover intentions, including disproportionate workload (i.e. Houkes, Janssen, De Jonge & Bakker, 2003), role stressors associated with performing tasks not in the employee's job description or role ambiguity (i.e. Asiwe, Hill & Jorgensen, 2015), and a lack of challenge (i.e. Mathieu & Zajac, 1990) characterised by task repetitiveness and excessive routine (i.e. Griffeth, Hom & Gaertner, 2000)

According to Asiwe et al. (2015), excessive workload or high demands may also occur when an individual does not have the required skills, abilities and support to meet the expressed

demands. High levels of stress are, therefore, prevalent in individuals experiencing work overload (Schaufeli & Bakker, 2004), characterised by feeling overwhelmed by perceived time pressures and deadlines, excessive work demands and information overload (Montgomery, Peeters, Schaufeli & Den Ouden, 2003). Furthermore, Rosse and Rosse (1981, quoted in Karimi, Omar, Alipour & Karimi, 2014) noted role conflict (incompatible demands from management or colleagues) and role ambiguity (lack of clarity on management or colleagues' expectations) significantly contribute to the employee's experience of job stress and subsequent intention to leave the organisation. Hoonakker et al. (2013) are also of the opinion that work-family conflict could be considered a job demand, and has been negatively linked to various organisational outcomes, including job satisfaction, organisational commitment, job stress and turnover (Ahuja, 2002; Hoonakker, Carayon & Schoepke, 2005). As many IT related jobs expect of employees to work late, be on-call to address technical problems, and even travel extensively, all of these factors can contribute to conflict between work and family-life. Greenhaus and Beutell (1985) define work-family conflict as a type of inter-role conflict that could occur in instances when the demands of work and family are equally incompatible.

In contrast, available job and organisational design literature also highlight job resources may prompt a motivational process giving rise to job-related learning, work engagement and organisational commitment (i.e. Blau & Boal, 1987) and subsequently a propensity to stay with an organisation, including decision-making autonomy (i.e. Beehr, Glaser, Canali & Wallwey, 2001), social support from both colleagues and management (i.e. Jawahar & Hemmasi, 2006) and person-organisation fit (Verquer, Beehr & Wagner, 2003). According to Kotze and Roodt (2005), control refers to the freedom experienced by or ability attributed to an employee to influence or control their work environment. A study by Lok and Crawford (1999) found a significant positive correlation between expressed levels of organisational commitment and the level of control an employee is allocated within an organisation.

Furthermore, employees are motivated by interesting and challenging work that not only offers them an opportunity to apply their skills and experience, but also encourages learning opportunities and information exchange. IT professionals will constantly seek opportunities to work on projects in an effort to enhance their own career, knowledge and future earning power. According to Ang and Slaughter (2001), job design characteristics have been found to impact employee attitudes, behaviours and job performance. The perceived job characteristics found to impact intention to stay include:

- Autonomy or the level of freedom, independence and discretion allocated to an employee to structure and perform his or her job.

- Job feedback received from the manager on employee performance.
- Skills variety refers to the amount and complexity of skills required from an employee to effectively perform in his or her job.
- Job identity appraises the extent to which job tasks are well-defined to employees.
- Job significance is defined as the level of importance attached to a specific job.

Various studies (i.e. Hay, 2002; Lok and Crawford, 1999) have found a positive relationship between retention and organisations providing a clear sense of direction, employees being offered greater control over their work environment, high prevalence of team commitment, and a democratic, innovative and supportive subculture. Crim and Seijts (2006) emphasised the importance of leaders communicating a clear vision and ensuring employees understand the vision senior management has for an organisation. As organisational success is to a greater extent determined by the clarity of goals, clear communication must ensure employees understand the organisational goals, the reasons for their importance, and suggested approaches to best attain these goals.

Lok and Crawford (1999) also found a significant positive relationship between an employee's expressed commitment and organisations with pioneering and supportive subcultures. An organisational subculture refers to the specific culture that is prevalent within a section, team or department, which can often differ from the larger organisational culture. Kotze and Roodt (2005) defined organisational climate or culture as the lasting organisational characteristics which represent the employees' perceptions about the organisation as it relates to the dimensions of trust, cohesiveness, support, recognition, innovation and fairness. Moran and Volkwein (1992) elaborated on this definition by emphasising the importance of including reference to predominant norms, values, attitudes and the organisational culture. Organisational performance and lower employee turnover will be the result of creating an organisational environment that encourages positive employee emotions including greater involvement and pride within the organisation, according to Robinson (2006, quoted in Kular et al., 2008). West (2005) also was of the opinion employees experiencing positive emotions tend to be more flexible in their thinking and experience a greater sense of self-control to cope more effectively within the workplace.

The research of Kidd and Smewing (2001) found a positive linear relationship between the level of management support and employee commitment and intention to stay with an organisation. Management support refers to the specific behaviours a manager exhibits to sustain employee motivation and innovation, including reward and recognition. This management support

includes the recognition and feedback managers provide to employees (Van Dyk and Coetzee (2012) and will increase employees' long term affective commitment. Feelings of organisational loyalty and commitment may develop as individuals are provided with praise and constructive feedback (Döckel et al., 2006). The receipt of feedback, praise and recognition by employees are, therefore, important to retain key talent within an organisation.

Direct line manager behaviour associated with showing understanding, being friendly and approachable, offering praise and recognition for good performance, listening to the opinions expressed by employees, and showing personal interest has also shown to increase employee satisfaction. The Markinor South African employee relationship survey (2003, quoted in Kotze & Roodt, 2005) also emphasise team and department commitment levels are typically stronger in relation to organisational commitment levels, providing support to the argument that employees tend to leave due to challenges experienced with a manager, not the company. Sigler (1999) was of the opinion perceived insufficient information on and communication about employee performance may impact the organisation's ability to retain key employees. By providing sufficient feedback on performance, early intentions to leave might be prevented, according to Döckel (2003). Employee trust in the organisation and line manager is increased through this behaviour, leading to greater employee satisfaction based on the belief in the manager's ability to lead the organisation effectively.

(ii) Human resource management (HRM) literature

According to Hoonakker et al. (2013), human resource management (HRM) literature forms the second body of literature examining the interaction between job demands and job resources as it relates to turnover intentions and turnover, and focuses on clarifying the practices (i.e. resources) that assist an organisation in meeting its strategic goals through attracting, maintaining and effectively managing their employees. The HRM literature emphasises the importance of key job resources such as career advancement (promotional) opportunities, training (availability and satisfaction with training opportunities offered by the organisation), developmental opportunities (i.e. management development programs, coaching from peers and supervisors, mentorships), as well as a fair reward system.

A survey conducted by Kochanski and Ledford (2001) indicated the perceived availability of career opportunities as a more significant predictor of employee retention, followed by training opportunities and the employee's relationship with his or her direct manager. According to research by Kraimer, Seibert, Wayne, Liden and Bravo (2011), job performance and turnover could be predicted by employees' perception of the availability of career opportunities. Career

opportunities can include career opportunities both internal (within) and external (outside) to the employee's current environment. Improved job performance and a reduction in employees' intention to leave were prevalent in cases where career opportunities were apparent to employees.

Work related factors associated with specific conditions of employment (e.g. salary, career opportunities) are also important causes of turnover intentions, according to Houkes et al. (2003). When employees consider their opportunities for further growth or progression as limited or absent within an organisation (unmet career expectations), a withdrawal reaction may be evoked in an attempt to cope with the perceived frustration. In these circumstances, turnover to an alternative job with perceived better career opportunities may become an attractive solution for an employee (Houkes et al., 2003). Therefore, by enhancing career development and the introduction of sucession planning, employee intention to quit can be reduced (Janse van Rensburg et al., 2013).

Kraimer et al. (2011) emphasise the importance of organisations offering training and development opportunities in sustaining employee development and growth. Through job rotation, coaching and mentoring opportunities, organisations can convey the importance attached to human resources in attaining and maintaining a competitive advantage, according to Döckel (2003). The availability and accessibility of training and development opportunities are important influences on employees' intention to stay with an organisation. When offered an opportunity to acquire new skills, employees are given a sense of self-worth and increased affective commitment towards the organisation (Döckel, 2003). Employee perceptions of being valued can, therefore, be addressed through organisations showing their commitment to investing in training and development programs.

Furthermore, skills and talent development was indicated as a significant contributor to employee retention in a study by Hay (2002). Gable (1999) was of the opinion organisations should ensure employees remain current with emerging technologies due to the continuous and swift change in technical and business needs. Döckel (2003) found a direct relationship between an employee's level of organisational commitment and the availability of training, development and career opportunities. Employees will remain with an organisation that advocates professional growth through continuous learning, and offering employees the ability and opportunity to apply the acquired skills within their work environment.

The prospect of better pay and a more conducive work environment are still significant factors impacting employees' intentions to stay with an organisation. Although monetary compensation

is still used by organisations as an incentive to attract employees to the organisation, Higginbotham (1997, cited in Döckel et al., 2006) indicated employee perception of fair compensation rather than high salaries show a stronger correlation with employee retention. Employees especially within the IT industry exhibit a need to understand how pay systems work, including understanding how their current salary can be increased. Monetary compensation in the form of bonuses, profit share options and incentives can provide employees with security, autonomy and recognition, according to Hoyt and Gerloff (1999). Once the expected pay level has been reached, the availability of intangible or non-monetary related benefits become more important, including greater work-life balance, perceived career and manager support, and access to non-traditional work methodology (i.e. work from home). Although pay and benefits remain a critical factor impacting employees' intention to stay or leave an organisation, constructs related to the nature and quality of work experience and the organisation's value proposition are closely aligned with the drivers of sustainable engagement.

Employees' perception of how well their job and organisation address qualities they perceive as important will, therefore, determine the level of job satisfaction, according to Luthans (1998, quoted in Kotze & Roodt, 2005). The study of Lok and Crawford (1999) highlighted the importance of perceived satisfaction of high-order needs in relation to employee commitment and job satisfaction. A strong positive correlation was found between an employee's commitment levels and their perceptions of an organisation's ability to address their higher order needs. The higher order needs include an employee's perceptions of level of control over their work environment, the level of organisational professionalism, opportunities to interact with co-workers and the prevalence of praise and feedback from colleagues and line managers.

Roland, Rust, Stewart and Pielack (1996, as cited in Kotze & Roodt, 2005) report on various studies indicating a significant correlation between the constructs of job satisfaction, employee commitment and retention. According to a study by Udo and Tor-Guimaraes (1997), employee intention to stay is indirectly influenced by the level of job satisfaction, job involvement, job characteristics and role stressors experienced. Blankertz and Robinson (1996) confirmed the relationship between high job satisfaction and motivation, as highly motivated employees have a low intention to leave their jobs. According to Mitchell, Holtom and Lee (2001a), job satisfaction can be the result of various initiatives, including job enrichment, quality management and leadership, clear roles, and met expectations. In contrast, dissatisfaction can be linked to occurrences of job stress, repetitive work, role ambiguity and role overload. Furthermore, economic factors related to remuneration, benefits and other rewards can also impact job satisfaction. Job satisfaction is, therefore, considered a key factor in employee

motivation, according to Mak and Sockel (2001), with a negative relationship to absenteeism and employee turnover intentions.

2.3.3 The business imperative of keeping turnover low

Halawi, Aronson and McCarthy (2005) claim that the retention of key talent by organisations is becoming an imperative as the organisation's human capital is increasingly becoming a source of competitive advantage. Turnover intentions hold substantial implications for an organisation, influencing factors related to the potential cost of human capital loss and the interruption caused to continuous organisational activities, according to Smyth, Zhai and Li (2009). There is an increasing awareness that the shifts in workforce characteristics require organisations to place more emphasis and focus on the retention of skilled employees by keeping them fully engaged (Frank, Finnegan & Taylor, 2004). It is, therefore, imperative for organisations to be equipped to make informed decisions pertaining to the development of effective retention practices leading to reduced turnover (Hillmer, Hillmer & McRoberts, 2004).

Retention is defined by Van Dyk and Coetzee (2012) as the factors that expedite the retention or exit of employees and their decisions to either remain or leave an organisation depending on their priorities. Cascio (2003, as quoted in Döckel et al., 2006) define retention as strategies developed and implemented by organisations to retain employees through rewarding effective job performance, creating a favourable relationship between employee and management, and maintaining a safe and healthy work environment. The retention of employees is an increasingly important organisational challenge, according to Lumley et al. (2011). This phenomenon is primarily due to unprecedented levels of talent mobility as employees actively seek to address their own individual demands, impacting organisation's ability to retain the most talented employees.

Organisations experience retention challenges primarily due to employee turnover (especially voluntary termination of the employment contract), burnout, or a lack of commitment towards the job or organisation (Mak & Sockel, 2001). The increase in turnover will subsequently manifest in not only a decrease in production, but also the export of organisational intellectual and human capital in the form of education, training and experience leaving the organisation. As employee turnover could have a negative effect on organisational effectiveness, the direct relationship between low employee engagement and intention to leave (turnover intention) should be understood by organisations.

The same constructs driving sustainable engagement also support an organisation's talent acquisition and retention strategy. The attraction, sustained engagement and retention of employees are viewed as interdependent and corresponding stages of an individual's employee life cycle within an organisation (Towers Watson Global Workforce Study, 2012). For organisations to ensure high levels of work engagement and intention to stay in their employees, an environment must be created where an employee is provided with positive experiences and perceptions of working life, and a sense of being valued and involved (Human Capital Institute, 2011). According to Robinson et al. (2004), the imperatives for ensuring work engagement and subsequent lower turnover intentions within an organisation include the following:

- Good and effective leadership, characterised by managers keeping employees informed, exhibiting fair treatment and support for continuous development, and continuous encouragement to exceed performance expectations.
- Open and clear two-way communication which allows all employees an opportunity to offer opinions to improve work processes, and managers ensuring all team members are kept informed about team and organisational factors impacting their world of work.
- Increased levels of collaboration internally, especially between different departments and functions.
- Emphasising employee development by providing training to address current development needs, but also access to development opportunities for future aspirations.
- Organisational assurance and commitment towards employee well-being by ensuring effective policies and procedures are in place to address potential health and safety risks.
- Access to fair human resource policies and practices across all organisational levels related to especially performance appraisals and equal opportunities.
- Ensure the organisation provides fair compensation in relation to internal and external benchmarking of roles and organisations.

Due to the link between engagement and retention, there is a lower probability of highly engaged employees leaving an organisation on a voluntarily basis (Firth et al., 2004; Harter et al., 2002). As a significant number of employees leaving an organisation might be some of the best and most experienced talent, organisations must make a conscious effort to manage the voluntary turnover within the company, according to Mak and Sockel (2001). Retaining the best and experienced talent and ensuring healthy, committed and productive staff will contribute to an organisation's competitive advantage.

2.4 Exploring the relationship between job demands, job resources, work engagement and turnover intentions.

Previous studies have proven a positive relationship between job resources and employee engagement (Bakker et al., 2008; Schaufeli & Bakker, 2004). Schaufeli and Bakker (2004) found that work engagement is strongly predicted by the availability of job resources. Hakanen et al. (2008) found job resources a better predictor of future engagement. In addition, Rothmann and Pieterse's (2007) study on the relationship between job resources and employee engagement established that growth opportunities prevalent in the job (i.e. variety, learning opportunities and autonomy) were better predictors of employee engagement. It can, therefore, be expected that job resources have a positive relation to work engagement, according to Coetzer and Rothmann (2007a). They were further of the opinion that if the employee is provided with job variety, learning opportunities and autonomy, the likelihood increases of the employee being strongly engaged to his or her work. It is proposed that job resources (including growth opportunities, support from the organisation, advancement opportunities and job security) will explain a significant proportion of the variance in work engagement in the present study (proposition 1).

According to Rothmann and Jordaan (2006), limited information is available pertaining to the relationship between job demands and work engagement. Theoretically the JD-R model does not assume any direct connotation of job demands with work engagement as mentioned by Schaufeli and Bakker (2004), and seems to relate to engagement in both positive (Van den Broeck et al., 2008) and negative ways (Bakker, Hakanen, Demerouti & Xanthopoulou, 2007). Podsakoff, LePine and LePine (2007) conducted a meta-analysis of job demands and job satisfaction by differentiating between job challenges (i.e. quantitative workload, pressure to complete a task, and time urgency) and job hindrances (i.e. situational constraints, hassles, resource inadequacies, role conflict, role ambiguity and role overload), finding a positive association of challenges with job satisfaction and a negative association with hindrances. Challenging job demands, therefore, promote positive motivational states associated with employee engagement (Podsakoff et al., 2007).

In contrast, hindering job demands may be a contributing factor to job stress when employees are confronted by demands requiring additional effort when they have not recovered from the stress caused by previous job demands, according to Meijman and Mulder (1998). May, Gilson and Harter (2004) were of the opinion these physical, emotional and/or cognitive demands (i.e. overload) might overwhelm an individual and lead to disengagement from work. According to Maslach (1993), job demands negatively impact the employee's energy levels and, in an

attempt to cope with the resulting exhaustion, the employee mentally withdraws with a resulting decrease in work engagement levels. Schaufeli and Bakker (2004) found that job demands lead to burnout, which in turn impact the work engagement of employees. Based on the abovementioned overview and insight, it is proposed in the present study that job demands (overload) will explain a significant proportion of the variance in work engagement (proposition 2).

According to an empirical study by Schaufeli and Bakker (2004), job demands are associated with higher levels of employee exhaustion, and the availability of job resources with work engagement. A longitudinal study by Mauno, Kinnunen and Roukolainen (2007) has highlighted job resources as better predictors of the levels of employee engagement than job demands. These job resources refer to aspects related to social support from colleagues and the intrinsic nature of the job, including skills variety, autonomy and learning opportunities. It would, however, seem that individuals could experience work engagement despite higher work demands. In these instances, the availability of relevant and appropriate job resources could moderate the effect of job demands on the employees' levels of engagement. Job resources could, therefore, diminish the effect of job demands on work engagement, according to Hakanen, Bakker and Demerouti (2005). This is due to a weak relationship between job demands and work engagement in individuals with high job resources. It is, therefore, proposed that job demands will moderate the relationship between job resources and work engagement in the present study (proposition 3).

Job resources are considered to be crucial for employee retention, according to De Braine and Roodt (2011). Various studies (i.e. Bakker & Demerouti, 2007; Bakker, Demerouti & Verbeke, 2004; Demerouti et al., 2001b; Schaufeli & Bakker, 2004) indicated the absence of job resources is related to disengagement, which in turn, increases turnover intentions. De Lange et al. (2008) found that low work engagement, low job autonomy and low departmental resources predicted employees leaving their companies and transferring to other companies. Furthermore, if an organisation provides resources that enable the employee to perform his or her duties successfully, the employee may be hesitant about leaving the organisation (Halbesleben & Wheeler, 2008). Within the present study, it is proposed that job resources (including growth opportunities, support from the organisation, advancement opportunities and job security) will explain a significant proportion of the variance in turnover intentions (proposition 4).

Maslach, Jackson, and Leiter (1996) hypothesized that the presence of specific demands (i.e. work overload and personal conflicts) and the absence of specific resources (i.e. control coping, social support, autonomy, and decision involvement) predicts burnout which, in turn, is expected to lead to various negative outcomes, including an increase in employee turnover. According to Bester (2012), job demands (especially in instances where a lack of resources are experienced) stimulate exhaustion (the opposite of engagement) which, in turn, leads to higher turnover intensions. It is, therefore, proposed that job demands (overload) will contribute significantly to the difference in turnover intentions (proposition 5).

Research has indicated that work engagement has emerged in the current world of work as a construct that might have a significant influence on employees' intention to leave an organisation (i.e. Halbesleben & Wheeler, 2008; Mitchell et al, 2001a). Saks (2006) proposed work engagement is associated with an individual's attitudes, intentions and behaviours. In particular, employees exhibiting lower levels of engagement have a higher intention to leave an organisation, including making the final decision to proceed with terminating their employment (Mitchell, Holtom, Lee, Sablynski & Erez, 2001b). An engaged employee will, therefore, be more likely to exhibit attachment to their employing organisation, according to Schaufeli and Bakker (2004), leading to a lower propensity to leave. This view is supported by various researchers that indicated work engagement is negatively related to turnover intentions (i.e. Du Plooy & Roodt, 2010; Harter et al., 2002). These studies have led to the formulation of the research proposition that work engagement has a statistically significant negative relationship with turnover intentions (proposition 6).

A study conducted by Schaufeli and Bakker (2004) on the link between work engagement and turnover intention also indicated a relationship between the absence of job resources and higher levels of disengagement, which increases turnover intentions. Job resources positively affected work engagement which, in turn, negatively predicted the turnover intention proposed by the motivational process. It is subsequently suggested that engagement is exclusively predicated by the availability of job resources, relates only to turnover intentions, and mediates the relationship between job resources and turnover intentions. Based on the abovementioned discussion, it is proposed that work engagement will mediate the relationship between job resources and turnover intentions within the present study (proposition 7).

2.5 Conclusion

This current chapter presented an overview of the relevant literature pertaining to the work engagement and turnover intentions constructs. It is clear from the research reviewed, that the employee engagement construct has become an important focus for organisations. The business need to maximise the inputs of employees have also contributed to the heightened interest in engagement (Rothmann & Rothmann, 2010). As business needs are driven by a globally competitive market, a need increasingly exists for employees to be emotionally and cognitively committed to their employer, customers and work. Positive organisational outcomes (including productivity, job satisfaction, motivation, commitment, low turnover intentions, and customer satisfaction) tend to be related to the level of employee engagement experienced within the organisation (Bakker et al., 2003a; Bakker et al., 2008; Schaufeli & Bakker, 2004). Engagement also tends to affect employee mind set, and is related to personal initiative and learning (Sonnentag, 2003). Furthermore, engagement also drives discretionary efforts and concerns related to quality of work, according to Salanova, Llorens, Cifre, Martinez and Schaufeli (2003).

Based on the information gathered during the literature review process, the work engagement and turnover intentions constructs were contextualised by providing a synopsis of the conventional definitions of work engagement and turnover intentions, including an outline of the key drivers and supporting models referenced within the literature reviewed. The Job-Demands Resources (JD-R) model by Demerouti et al. (2001b) was applied to provide a framework in which greater understanding could be gained on the drivers of work engagement and turnover intentions of employees. The model suggests that extreme job demands may lead to higher levels of exhaustion, with a lack of resources resulting in individuals not meeting job demands, ultimately leading to employees withdrawing and disengaging from work. According to Bakker et al. (2003a), employees with access to sufficient resources are more capable of effectively dealing with demanding work conditions.

Finally, the relationship between the variables of interest were also explored, with specific emphasis placed on understanding the link between job resources, job demands, the employee's level of work engagement and turnover intentions. A proposed work engagement and turnover intention theoretical model is depicted in Figure 2.9, illustrating the proposed relationships between the dependent and independent variables within the planned study.

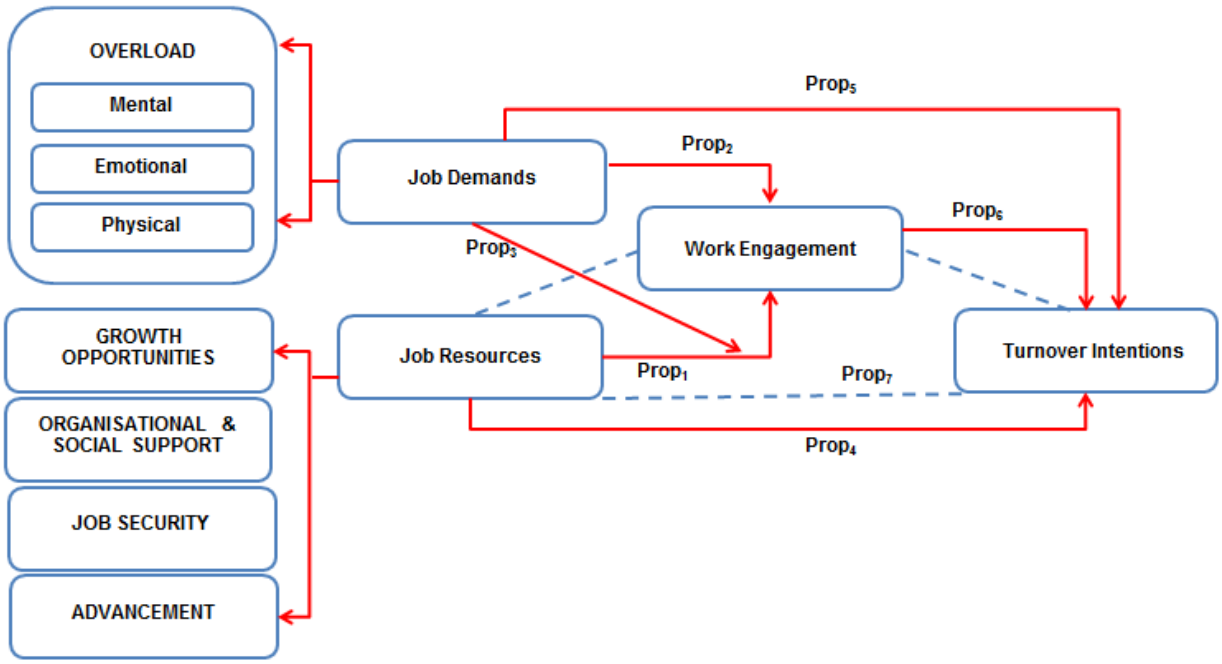

Figure 2.9: Proposed work engagement and turnover intention theoretical model

In conclusion, it is important to emphasise an organisation's ability to create and maintain a competitive advantage is dependent on the workforce. When it comes to people, research has shown the clear relationship between high levels of employee engagement and organisational performance. It is, therefore, imperative for business to understand the impact of engagement on operational success. Creating and sustaining engagement within any organisation will require a continuous measurement of engagement levels and a focused approach to determine the specific drivers of engagement unique to the organisation.

3 Chapter 3: Research Design

3.1 Introduction

The review of the relevant literature presented in chapter 2 constitutes the foundation for the research design and methodology presented in this section of the study. Kerlinger and Lee (2000) emphasised the contribution of survey research to the methodology of social sciences due to rigorous sampling procedures, the overall design and implementation of the design, the explicit definition and specification of the research problem, and the analysis and interpretation of the data. A research design is defined as "a strategic framework for action that serves as a bridge between research questions and the execution or implementation of the research" (Terre Blanche, Durrheim & Painter, 2006, p. 34). It is of importance for the research design to provide both detailed and extensive information on the approach followed during sampling, data collection and subsequent data analysis. This chapter will, therefore, undertake to provide a detailed description of the research design employed throughout the study, with specific reference to the research methodology or approach applied.

3.2 Research methodology

Research methodology can be defined as the process applied during research to collect data and other types of information to assist with making business decisions. Decisions on the specific methodology to apply during any research will, therefore, depend on the nature of the research questions to be addressed. Van der Westhuizen (2014) positions research methodology as the tools and procedures used during the research process. Babbie and Mouton (2006, cited in Van der Westhuizen, 2014) were of the opinion the application of an appropriate research methodology contributes to the objectivity and rationality of the ultimate research findings. By focusing on the reduction of error, the research methodology applied contributes to determining the validity and credibility of inferences (Van der Westhuizen, 2014). It is, therefore, recommended that any research process should be approached with the necessary vigilance and care. In this study, methodology refers to how the research was done and its logical sequence. Kothari (2004) provides an overview of the two general approaches to conducting research, including qualitative and quantitative research.

3.2.1 Qualitative research

Strauss and Corbin (1998) define qualitative research as a type of research that produces results without the application of statistical procedures or other forms of quantification. Döckel (2003) described qualitative research methodology as contextual research focusing on interpreting human experience within the context and perspective of the research participant. A qualitative approach to research is, therefore, focused on subjective assessment of attitudes, opinions and behaviour, according to Kothari (2004).

The value of this type of research is in the reflection of the researcher's insights, assumptions and impressions during and after the research. The non-quantitative data generated through this type of research can also not be subjected to arduous quantitative analysis (Kothari, 2004). The specific techniques applied during qualitative research to generate data can include focus group interviews, projective techniques and in-depth interviews. The key advantage of a qualitative research approach is that it allows for a flexible strategy of problem formulation and data collection. As qualitative research is concerned with the application of non-statistical methods and the use of smaller samples, another advantage associated with this approach is the ease of access to the purposefully selected sample. As the research only take into consideration the opinions and feedback on a sample of the population, larger surveys would not be required.

Qualitative research does, however, hold certain disadvantages. The data collection and analysis processes are usually time-consuming, and results are more easily influenced by the researcher's personal biases. Due to the focus of qualitative research on a specific sample of the population being researched, general assumptions about the results and generalisation of the results to populations outside of the sample scope would not be feasible. The design's flexibility and continued transformation throughout the research process can also pose as a disadvantage as the design cannot be exactly replicated in future studies. Qualitative research, therefore, does not lend itself to the generation of objective statistical data.

3.2.2 Quantitative research

Quantitative research entails the generation of data by a large number of participants or respondents involved in the research. As quantitative research focuses on generating numerical data, the data can be subjected to objective statistical analysis, according to Kothari (2004). Quantitative research can further be categorised as follows:

- Inferential approach: The aim of this approach is to generate a database from which specific characteristics or relationships of the population can be inferred (Kothari, 2004). Survey research is an example of this type of approach, where a sample of the population is questioned and observed to determine its characteristics. It is then assumed that the greater population has the same characteristics (Kothari, 2004).
- Experimental approach: This approach is characterised by greater control over the research environment (Kothari, 2004) where selected variables are manipulated to assess the impact on other variables.
- Simulation approach: The simulation approach involves the generation of an artificial environment within which specific relevant information and data can be generated (Kothari, 2004).

Quantitative research provides statistically driven quantitative data that can be visually represented using various chart and graphs as the data is more readily available (Wordpress, 2011). Data can be obtained systematically and in a standardised manner. This type of research can also be conducted with larger population groups to provide information with great value as it allows the researcher to test predictive and cause-effect hypothesis pertaining to the social reality.

As quantitative research relies on the use of larger population groups, one of the disadvantages of this type of research is the high cost involved. Another disadvantage of quantitative research is that the participant numbers can change often (Wordpress, 2011). When research is conducted on a statistical level, then it would have to take place more frequently to help balance out the consistent changing of participant numbers (Wordpress, 2011). Although a non-probability approach for selecting participants in a research study provides greater control over the target population, it decreases the possibility of generalising identified trends to the larger population, according to Yeager, Krosnick, Chang, Javitz, Levendusky, Simpser and Wang (2011). Due to the ease of production and distribution of a survey questionnaire, a significant amount of additional data can be collected by the researcher. The analysis and interpretation of this data can, however, be a time consuming, expensive and a labour intensive process.

For the purposes of this research, a quantitative research methodology was deemed the most appropriate approach to not only address given and already determined propositions and research objectives, but to assist with establishing the relationships and the strength of the relationships within the larger population. All the intended reporting was, therefore, based on

established questionnaires (i.e. measurements) whereby statistical procedures will be carried out.

3.3 Research propositions

Van Dyk (2011) defined propositions as statements pertaining to the relations between the variables of a study, and lead to clear implications for testing of any stated relations. Propositions contain two or more variables that could potentially be measured, and may specify if and how these variables are related (Van Dyk, 2011). According to Graziano and Raulin (2000), the dependent variable in a study is the participant's response to the researcher's manipulation of the independent variable(s). It is, therefore, the variable that will be influenced by changes to the independent variable(s). An independent variable is the variable within a study that is actively manipulated by the researcher to investigate and/or assess its impact on the other variables.

The literature review informed the propositions for the quantitative study on a sample population of IT professionals within the banking industry. These detailed and path-specific substantive propositions formed the basis of the intended research as outlined in Table 3.1.

Table 3.1: Propositions to be tested in the present study

Number	Propositions to be tested
Proposition 1	Job resources (including growth opportunities, organisational support, advancement and job security) explain a significant proportion of the variance in work engagement.
Proposition 2	Job demands (overload) explain a significant proportion of the variance in work engagement.
Proposition 3	Job demands moderate the relationship between job resources and work engagement

Number	Propositions to be tested
Proposition 4	Job resources (growth opportunities, organisational support, advancement and job security) explain a significant proportion of the variance in turnover intentions.
Proposition 5	Job demands (overload) explain a significant proportion of the variance in turnover intentions.
Proposition 6	Work engagement has a statistically significant negative relationship with turnover intentions.
Proposition 7	Work engagement mediates the relationship between job resources and turnover intentions.

3.4 Research participants

Som (1996, p. 1) defined sampling as "the process by which inferences are made to the whole by examining only a part". As part of an information-collection and decision-making process, sample surveys are usually conducted on different aspects of life, culture, and science. As the ultimate purpose of sampling is to provide the researcher with various types of statistical information of a quantitative or qualitative nature, the sampling method is viewed as the scientific procedure for selecting those sampling units which will provide the required estimates with associated margins of uncertainty, arising from examining only a part and not the whole (Som, 1996). Sampling, therefore, encompasses the selection of a sub-set or segments of the total population, according to Babbie and Mouton (2006, quoted in Van der Westhuizen, 2014). The intended study population for the research comprised of all the employees within the IT division of a South African retail bank.

3.4.1 Sampling procedure

For the purposes of this study, probability sampling was applied as sampling technique. Probability sampling, also known as "random sampling" or "chance sampling" (Kothari, 2004, p. 60), is a sampling technique wherein the samples are gathered in a process that offers each individual in the population equal chance of being selected. During the application of this sampling technique, the researcher must guarantee each individual will have an equal

opportunity for selection through the utilization of randomisation. The advantage of using probability sampling is the absence of both systematic and sampling bias. If random selection is executed properly, the sample will be considered representative of the entire population. Participants will, therefore, be selected by the researcher based on their proximity, but participation will be determined by their availability and willingness to respond (Gravetter & Forzano, 2011). Other major advantages associated with this type of sampling are related to the speed and ease of application, as well as the inexpensive nature of the methodology.

Although probability sampling offers no guarantees of a representative and unbiased sample, Gravetter and Forzano (2011) recommend two strategies to assist researchers in correcting most of the challenges associated with this approach. Firstly, active measures should be put in place to ensure the sample is reasonably representative and not strongly biased by ensuring a broad cross-section of participants (differences in departments, occupations, gender, age, years of service, etc.) is selected. Secondly, a clear description should be provided on the methodology applied to obtain the participants, including a description of the population characteristics. By providing an outline of the method applied to select the participants and the subsequent characteristics of this sample, a more informed decision can be made about the representativeness of the sample even though the produced samples might not be perfectly representative of the larger population.

3.4.2 Profile of the sample population

The population selected for the purposes of the study comprised of 383 employees within the IT division of a South African retail bank. The final sample consisted of 239 (n) individuals completing the survey questionnaire, providing a 62.40% response rate to the questionnaire. The profile of the sample population in terms of biographical and demographic information is presented in Table 3.2.

Table 3.2: Biographical and demographic profile of respondents (n = 239)

Item	Category	Frequency (n)	Percentage (%)
Tenure	Less than 1 year	50	20.9%
	1 to 3 years	84	35.1%
	4 to 7 years	56	23.4%
	8 to 10 years	23	9.6%
	Longer than 10 years	26	10.9%

Item	Category	Frequency (n)	Percentage (%)
Employment Status	Permanent	237	99.2%
	Contract	2	0.8%
Age	Younger than 21 years	7	2.9%
	21-25 years	40	16.7%
	26-29 years	33	13.8%
	30-38 years	89	37.2%
	39-45 years	35	14.6%
	46-55 years	30	12.6%
	Older than 55 years	5	2.1%
Gender	Male	193	80.8%
	Female	46	19.2%
Race	African/Black	14	5.9%
	Coloured	68	28.5%
	Indian/Asian	6	2.5%
	White	151	63.2%

As reflected in Table 3.2, a significant portion of the participant group (56.07%) indicated a service period or tenure of 3 years or less. This is indicative of a significant increase in the number of new employees joining the organisation that will subsequently need to be developed and retained for future management or specialist positions within the organisation. Although employees of all types of employment status were invited to participate in this study, only 0.8% of the sample consisted of contractors. A significant portion of the participating population were also between the ages of 30 to 38 (37.2%) and male (80.8%). The ethnic distribution of the participants indicated a White majority (63.2%) within the target population, followed by Coloured (28.5%), African (5.9%) and Indian (2.5%) participants. This is a reflection of the homogeneity of the organisation's work force as the sample only represents 36.8% of the previously disadvantaged population groups within South Africa.

3.5 Method of data collection

The most appropriate approach to gain an accurate view and reliable information pertaining to the variables in question within the business was through a standardised quantitative questionnaire. A questionnaire can be defined as a group of written questions applied to gather information from a group of respondents and is viewed by researchers as one of the most common tools available for data gathering in the social sciences. According to Döckel (2003), a

questionnaire will typically consist of measurement scales related to specific variables and questions designed to elicit demographical information related to the respondents.

Some of the main advantages associated with a questionnaire include the speed with which a significant amount of real-time data can be collected and analysed within a short timeframe. Through the application of an anonymous survey type questionnaire, participants in the study could be assured of a significant level of confidentiality. This can potentially contribute to higher participation or participant response rates on the survey, including more honesty in the participants' responses to the statements. The data generated through the questionnaire will also be used in providing information to assist management with decision-making by highlighting areas requiring urgent attention.

3.5.1 Web-based questionnaires

For the purposes of this study, the gathering of participant responses was executed via a web-based survey. The internet is offering researchers an alternative or addition to conventional modes of surveying (i.e. telephonic, mail, and face-to-face interviews), with the emphasis being placed on the high efficacy, quicker turnaround time for respondent feedback, and decrease in costs associated with web-based surveys when compared with other forms of data collection (Lyons, Cude, Lawrence & Gutter, 2005; Skitka & Sargis, 2006; Tourangeau, 2004; Wright, 2005). In more traditional survey settings, the researcher is generally cautioned against the potential occurrence of response bias, according to Weber and Bradley (no date). Lyons et al. (2005) were of the opinion that the quality of responses gathered pertaining to sensitive topics of inquiry through the application of a web-based methodology is at least equal to the quality of more traditional methods. While confidentiality is difficult to guarantee in any setting, Skitka and Sargis (2006) were of the opinion web-based surveys seem to offer individuals a better sense of anonymity, leading to a decreased likelihood of response bias and increased response rate.

Although the benefits and new possibilities provided by web-based surveys are far-reaching, the limitations imposed by the methodology must also be taken into consideration (Weber & Bradley, no date). Web-based surveys are typically confronted by limited access to certain demographic groups (Skitka & Sargis, 2006; Tourangeau, 2004) as certain populations are still excluded from technological advancements. Another disadvantage impacting the reliability and validity of all web-based surveys, are the potential occurrence of non-response. According to Skitka and Sargis (2006), non-response errors refer to the solicited participants' decision not to

partake in the study, and can include non-receipt of e-mails and non-response on e-mails requesting participation in the study. Other limitations to a web-based methodology include the potential occurrence of multiple responses from a single participant and the receipt of unsolicited response. This can, however, be countered by using e-surveying services providing assistance in validating the origins and uniqueness of responses via the tracking of e-mails and IP addresses (Weber & Bradley, no date).

Although it is important to take note of the potential challenges associated with web-based surveys, the advantages still outweigh the disadvantages. Online surveys are less time consuming, more affordable, results are generated faster, and data can be transferred and used in other business applications (Weber & Bradley, no date). These advantages are certainly expected to increase the attractiveness of conducting survey research on-line from the researcher's perspective (Roztocki & Morgan, 2002), leading to an increase in participant response rate and mitigate non-response biases (Weber & Bradley, no date).

3.5.2 Measuring instruments

A researcher's ability to determine the relationships between variables is influenced by the availability of instruments that can provide a measurement of the latent variables of interest, according to Van der Westhuizen (2014). Diamantopoulos and Siguaw (2000) emphatically state the quality of the measurement must be trusted to ensure a reliable assessment of the substantive relations of interest. To allow for the provision of empirical evidence that the proposed relationships are supported by the theoretical turnover intentions and employee engagement models, and offer a credible clarification for the differences in turnover intention and employee engagement amongst the target population of the study, it was of importance to ensure valid and reliable instruments were used to measure the variables of interest.

Based on existing international and South African research evidence, the reliability and validity of the selected instruments were reported to justify their application during this study. The self-administered, web-based survey comprised of four sections. The first section provided a measurement of the participants' biographical and employment information. The subsequent sections provided a measurement of the specific latent variables using valid and reliable measuring instruments. The selected instruments included the Utrecht Work Engagement Scale (UWES-17) designed by Schaufeli et al. (2002), the Job Demands-Resources Scale (Jackson & Rothmann, 2005), and Roodt's (2004) Turnover Intentions Scale (TIS). To enable

the individual participants to complete the self-administered web-based questionnaire, they were provided with clear and concise instructions.

3.5.2.1 Biographical and employment information

The first section of the self-administered, web-based questionnaire focused on collecting the biographical information (i.e. age group, gender, ethnic group and home language) and employment information (i.e. length of service, employment status, department name) of the research participants.

3.5.2.2 Job Demands-Resources Scale (JDRS)

The Job Demands-Resources Scale (JDRS) (see Annexure D) was used to measure job demands and job resources of employees. The JDRS was originally developed by Jackson and Rothmann (2005) based on detailed literature review and interviews with participating groups in their study. All items were developed and face validity checked. The JDRS consists of 48 items related to pace and amount of work, mental and emotional load, variety of work, opportunities to learn, independence in work, relationship with colleagues and immediate supervisor, ambiguities about work, information, communication, participation, contact possibilities, uncertainty about the future, remuneration and career possibilities. The items are rated on a four-point Likert scale ranging from 1 (never) to 4 (always).

According to Jackson and Rothmann (2005), the dimensions of JDRS consist of seven reliable factors, including organisational support (α = 0.88), growth opportunities (α = 0.80), overload (α = 0.75), job insecurity (α = 0.90), relationship with colleagues (α = 0.76), control (α = 0.71), and rewards (α = 0.78). Rothmann et al. (2006), however, extracted only five factors from a sample selected from various occupations and organisations in a South African study:

- The first factor is labelled *overload*, and encompasses physical, cognitive and emotional load. The items loading on this factor relate to time pressure (pace of work), attentiveness to many things at the same time (amount of work), and mental and emotional load (dealing with power struggles). Examples of these items include “I have to give my attention to many things at the same time”, and “I work under time pressure”.
- The second factor is labelled *growth opportunities*, and includes items related to having access to enough variety of work, opportunities to learn and independence in work

practices. Examples of these items include “My job offers me opportunities for personal growth and development”, and “I feel that I can achieve something in my work”.

- The third factor is labelled *organisational support*, and includes items related to relationship with management (managerial support) and colleagues (social support), flow of information (communication), role clarity, and participation in decision-making (the extent of work or role autonomy, control). Some examples of items reflecting this dimension include “I am allowed to influence the planning of my work activities”, and “I can participate in the decision about when a job must be completed”.
- The fourth factor is labelled *advancement*, and includes items related to reward, promotion (career possibilities), financial progress (remuneration) and training opportunities. Items associated with this dimension include “My job offers me the possibility of progress financially”, and “My company pays good salaries”.
- The final factor is labelled *job security*, and includes items that reflect the respondents’ perceptions about the future, including being more secured in keeping their current jobs and job levels in the next year. Examples of the items providing a measurement of this dimension include “I need to be more secure that I will still be working for the company in the next year”, and “I need to be more secure that I will keep my current job in the next year”.

Only 45 of the 48 items loaded on the five factors with the following alpha coefficients: overload (α = 0.76), organisational support (α = 0.92), growth opportunities (α = 0.86), advancement (α = 0.83), and job insecurity (α = 0.89). As Rothmann et al.’s (2006) study found highly acceptable alpha coefficients (ranging from 0.76 to 0.92), the scale indicates acceptable internal consistency reliability.

3.5.2.3 Utrecht Work Engagement Scale (UWES-17)

The employees’ level of work engagement was measured through the application of the Utrecht Work Engagement Scale (UWES) designed by Schaufeli et al. (2002). The UWES design is based on the conceptualisation of engagement by Maslach and Leiter (1997) supporting Schaufeli et al.’s (2002) definition of work engagement as a positive, fulfilling, work-related state of mind characterised by vigour, dedication, and absorption. Vigour provides an indication of high levels of energy and mental resilience during execution of work related tasks, and the willingness to exert discretionary effort within the work environment. Dedication refers to deriving a sense of significance from one’s work by taking pride in and being enthusiastic about

your work, and by feeling inspired and challenged by the expectations set for task execution. Absorption provides an indication of an individual's level of immersion within the job indicated by the level of difficulty experienced by individuals detaching themselves from their work.

The Utrecht Work Engagement Scale (UWES-17) is a self-report questionnaire (see Annexure E) that consists of 17 items, measuring the three underlying dimensions of work engagement, including vigour (six items), dedication (five items) and absorption (six items) (Schaufeli & Bakker, 2003). The initial design of the UWES included 24 items, but seven unsound items were subsequently omitted after rigorous psychometric analyses. The items are scored on a seven-point Likert scale with varying poles of intensity ranging from 0 (never) and 6 (always). Research conducted by Barkhuizen and Rothmann (2006) and Schaufeli and Bakker (2004) reported acceptable Cronbach alpha internal consistency reliability coefficients for the three subscales, ranging between 0.68 and 0.91. The UWES-17 has also been validated in several countries, including during South African studies conducted by Schaufeli and Bakker (2003) and Storm and Rothmann (2003).

Storm and Rothmann's (2003) South African based study reported acceptable alpha coefficients for the three subscales as depicted in Table 3.3.

Table 3.3: Cronbach's Alpha of the UWES-17 Subscales

UWES-17 Subscale	Cronbach's α
Vigour (six items)	α = 0.78
Dedication (five items)	α = 0.89
Absorption (six items)	α = 0.78

The UWES is available in 20 languages and provided free of charge for non-commercial purposes (including both a short form and student version).

3.5.2.4 Turnover Intention Scale (TIS)

The measurement of turnover intentions was addressed using the Turnover Intention Scale (TIS) developed by Roodt (2004). Although the questionnaire includes items related to the intention to stay, the theory and findings will still be valid for turnover intentions, according to Martin (2007). As most questionnaires found in literature only provide a measurement of

turnover intentions using a relatively small number of items, the application of the TIS can further be supported. Past studies either applied only single item scales with evident metric limitations, or restricted the number of items to three per instrument.

In this research study, the TIS was applied to measure the probability that employees of the IT division within a retail bank would quit their job in the foreseeable future. The TIS consists of 15 items (see Annexure F) that are measured on a five-point Likert response scale ranging from 1 (never) to 5 (always). Two earlier studies verified Roodt's (2004) questionnaire as both reliable and factually valid. Jacobs (2005) reported a Cronbach alpha coefficient of 0.91 for the 15-item version of the TIS. Martin (2007) and Martin and Roodt (2008) reported a Cronbach alpha coefficient of 0.90 for a 13-item version of the scale. More recently, Du Plooy and Roodt (2013) reported a Cronbach alpha coefficient of 0.80. Both factor and reliability analysis was carried out during data analysis to determine the instrument's reliability and validity on the specific study sample.

3.5.3 Ethical considerations

During the selection of the most appropriate questionnaires, care was taken to include questionnaire items free from potential bias. Commencing with the data gathering phase, free and informed consent (see Annexures B and C) of each potential participant was ensured and incorporated into the research design and data collection process. The consent process ensured that individuals voluntarily participated in the research with the full knowledge of the purpose of the study, how the data will be analysed and reported on, and who the relevant internal and/or external parties are that will have access to the information (see Annexures A and C).

Due to the sensitive nature of the research topic, active measures were put in place to ensure the confidentiality of the research participant. Participants were requested to complete the questionnaire voluntarily and assured that they can withdraw from the research at any time. A general communication e-mail was sent to the participant including a specific link to the web-based questionnaire. The formal e-mail communication provided an outline and confirmation of the following:

- The purpose of the questionnaire.
- An explanation on the process required to complete the questionnaire, including a due date for submission of feedback.

- The options available (web-based or paper based) to participants to complete the questionnaire.
- Clarity on what the survey feedback information will be used for.

The questionnaire was accessed via an anonymous on-line link, and limited biographical information was requested for reporting purposes. For participants choosing to complete a paper-based questionnaire (i.e. due to limited access to a computer), a centrally located sealed box was made available for the delivery of the completed questionnaire at a time convenient for the participant. During analysis and reporting, individual reports were not generated for teams consisting of six or fewer team members. By applying these measures, a greater response rate consisting of genuine and honest feedback from the respondents was expected.

3.6 Missing Data

Before any data analysis can be initiated, it is important to address the issue of potential missing values. Missing values could be problematic during the analysis of multivariate data as it could potentially reduce the representativeness of the sample. The likelihood of missing values is reduced with the administration of on-line or electronic surveys in a manner that necessitates a respondent to provide a rating on each item before proceeding to the next section or set of items in the questionnaire. During the collection of data via questionnaires, the participants may be unwilling or unable to respond to some items, or even fail to complete full sections of the questionnaire due to a lack of time or interest (Schafer & Olsen, 1998). This type of respondent behaviour, though inevitable, is unintended and uncontrolled by the researcher.

In the present study, respondents were requested to complete all the items in a specific section of the questionnaire before the next section of questions was presented. The on-line platform of the questionnaire offered the respondents the opportunity to exit and re-enter the survey at any given time and continue with the questions at the last point of exit. Due to the length of the survey (number of questions), this set-up was done in an attempt to ensure all willing participants could complete the questionnaire at their convenience. It was, however, expected that some data could potentially be missing due to the impact of factors related to respondent fatigue (due to the length of the survey), distractions in the respondents' work environment (impacting their ability to focus and complete the survey), respondents losing interest in the task (non-work related), and possible other factors.

The issue of missing values needed to be addressed before the data could be analysed. The method subsequently used will be governed by the number of missing values and the specific nature of the data. It is advisable to exclude missing values during multivariate analysis as the missing values can lead to distorted inferences about the population. Although no clear guidelines exist to provide a definition regarding what constitutes a significant amount of missing date, Kline (1999) suggests that the missing values should not exceed a 10% threshold of the total data. It is, however, important to keep in mind that missing responses for an item could be completely random, but it might also hold some meaning as to why a respondent chose not to answer the question. The presence of such missing values was assessed and appropriately treated before the full dataset was analysed.

3.7 Data analysis techniques

The acquired data was processed using the SPSS (Version 23) and MPlus (Version 7.3) statistical software packages. As the research design will produce quantitative data, the data was analysed by applying specific data analysis techniques determined by the type of data (quantitative) and descriptive statistics required. Various statistical techniques were applied to analyse the presented data and to test the proposed relationships. The statistical analysis was conducted in three broad phases:

3.7.1 Phase 1: Determining the appropriate measurement model

To initiate the data transformation process, the proposed structure and reliability of the utilised measuring instruments in the current study were revalidated for the study sample.

3.7.1.1 Validity of the questionnaires

Test validity provides an indication of the strength of the correlation between the results obtained and the criterion measured in the study. Factor analysis applied to the questionnaire will confirm the validity of the dimensions. Hurley, Scandura, Schriesheim, Brannick, Seers, Van den Berg and Williams (1997) define factor analysis as a statistical method used to describe variability amongst observed, correlated variables in terms of a potentially lower number of unobserved variables called factors. During factor analysis, the items were grouped according to the theoretical dimensions (categories) and then inter-correlated. Confirmatory factor analysis (CFA) followed by exploratory factor analysis (EFA) were employed to

understand shared variance of measured variables that is believed can be attributed to a factor or latent construct. The following process steps were taken to determine the appropriateness of the JDRS, UWES and TIS measurement models.

Confirmatory Factor Analysis (CFA) procedure

CFA was applied to define which observed variables/items are related to the specific constructs or latent factors – this relationship is based on a prior theory or the results of the EFA. CFA indicates whether the measures of each dimension (category) are consistent with the original researcher's understanding of the nature of the specific dimension (category). The main objective of CFA is, therefore, to test whether the data fits a hypothesized measurement model. The following steps were taken to conduct CFA on the JDRS, UWES and TIS measurement models:

- The original factor structure of the various instruments applied during this study as theorized by their respective authors was consulted to confirm the specific items associated with each sub dimension of the instrument.
- According to Hurley et al. (1997), various statistical tests are applied during CFA to determine the adequacy of model fit to the data, presented as an array of goodness-of-fit statistics. Hair, Black, Babin, Anderson and Tatham (2006, quoted in Du Plessis, 2014) recommended that researchers should report on at least one incremental fit index (i.e. NFI or CFI) and one absolute fit index (i.e. RMSEA, RMR or SRMR) in addition to the chi square statistics.

The goodness-of-fit statistics and their respective interpretation guidelines (in square brackets) that were considered are listed in Table 3.4.

Table 3.4: Goodness-of-fit statistics and interpretation guidelines

Indices	Abbreviation	Interpretation
Chi square /degrees of freedom	χ2/df	A value below 2 is preferred. Values between 2 and 5 are acceptable.

Indices	Abbreviation	Interpretation
Root mean square error of approximation	RMSEA	The RMSEA consist of values ranging from 0 to 1 with a smaller RMSEA value indicating better model fit. Hooper, Coughlan and Mullen (2008) define a good model fit as indicated by an RMSEA value of 0.06 or less. Values between 0.05 and 0.08 are acceptable.
Root mean square residual	RMR	Lower values present better fit; higher values poorer fit.
Comparative fit index	CFI	The CFI ranges from 0 to 1 with a larger value indicating better model fit. According to Hooper et al. (2008), an acceptable model fit is indicated by a CFI value of 0.90 or greater.
Tucker-Lewis Index	TLI	The TLI generally varies between 0 and 1 with values higher than 0.90 indicative of a good model fit with the data (Naude & Rothmann, 2004).

If the measurement indices demonstrated an acceptable level of fit, the original conceptualisation of the measurement instruments would be deemed acceptable for use during the analysis of the data from the research sample. If the indices demonstrated a poor fit, EFA was conducted.

Exploratory Factor Analysis (EFA) procedure

EFA is defined as a method of data reduction which infers the presence of latent factors which are deemed responsible for the shared variance in a set of observed variables or items. The goal of EFA is to identify factors based on data and to maximize the amount of variance explained. The researcher is not required to have any specific hypotheses about how many factors will emerge, and what items or variables these factors will comprise. If these hypotheses exist, they are not incorporated into and do not affect the results of the statistical analysis. Where appropriate, the following steps were taken to conduct EFA on the JDRS, UWES and TIS measurement models:

- The decision on whether a factor in the factor analysis is statistically significant enough to extract from the data for the interpretation purposes, is based on the Eigenvalue associated with the factor. The Eigenvalue (or Kaiser's criterion) is based on the idea of retaining factors with an associated value of greater than 1 (> 1).
- A geomin principle factor analysis was conducted on the results to determine if acceptable factor loadings of ≥ 3 were attained. Should a two-factor (or more) structure be present, items were also inspected to assess for potential cross-loadings. Higher factor loadings will be accepted if the difference between the item factor loadings is more than 0.250 (> 0.250). Items that fail to meet the specific criteria were excluded from further evaluation.
- After omitting the required items, the EFA process was repeated to determine if any of the items did not meet the criteria for inclusion. These items were also excluded and the process repeated until the items converged satisfactorily on the factors and all the problematic items were removed.
- The final step in this process was to conduct CFA again to examine the fit of the new measurement model.

The goodness-of-fit statistics of the original and the new measurement models will be compared to conclude the CFA and EFA process. In the event that the new measurement model provides a better fit for the research data, the new model will be consulted during all subsequent data analyses.

3.7.1.2 Reliability of the questionnaires

In order to determine whether the measuring instruments would produce consistent results, reliability analysis was performed. The reliability of the theoretical dimensions in the questionnaire was determined through the use of item analysis. Item analysis is a process in which responses to individual test items (questions) are examined to assess the quality of those items and of the test as a whole. Item analysis is, therefore, especially valuable in improving items which will be used again in later tests, but it can also be used to eliminate ambiguous or misleading items in a single test administration.

As a purely statistical measure, Cronbach's alpha (α) is an appropriate measure to be pursued towards reliability and will, therefore, be able to generate the same results under similar conditions if used again. The higher the average correlation amongst items in a dimension, the

lower the "error" or "unique" components of items in a dimension, according to Graziano and Raulin (2000). This indicates that all items are measuring the same construct (dimension). As Cronbach's alpha ranges in value from 0 to 1, a measurement tool should ideally obtain an alpha value of 0.70 or higher on a substantial sample. To determine the internal consistency of the sample, Kline's (1999) principles as outlined in Table 3.5 could be applied.

Table 3.5: Cronbach's alpha ranges and associated internal consistency rating

Cronbach's alpha	Internal consistency
$\alpha \geq 0.9$	Excellent (High-Stakes testing)
$0.7 \leq \alpha < 0.9$	Good (Low-Stakes testing)
$0.6 \leq \alpha < 0.7$	Acceptable
$0.5 \leq \alpha < 0.6$	Poor
$\alpha < 0.5$	Unacceptable

For the purposes of this study, if the overall reliability of the scale indicates a significant improvement after the selected items have been deleted, these items will be excluded from the subsequent CFA, according to Anastasi and Urbina (1997, quoted in Van der Westhuizen, 2014).

3.7.2 Phase 2: Descriptive statistics

Phase 2 of the data analysis process focused on gaining a description of the sample through the application of various descriptive statistics. Descriptive statistics are used to describe the basic features of the data in a study. The descriptive statistics applied in this study included the following:

- The mean (M) was calculated by summing the values of a variable for all observations and then dividing by the number of observations (Norušis, 2005), providing a description of the central tendency of the data.
- The standard deviation (SD) was calculated as the square root of the variance, according to Norušis (2005). As the standard deviation is a direct form of variance, it will be used in place of the latter for reporting.
- According to Weiner, Schinka and Velicer (2003), skewness and kurtosis are statistics for assessing the symmetry (skewness) and peakedness (kurtosis) of a distribution. In a

normal distribution, skewness and kurtosis are zero. A distribution with positive kurtosis (leptokurtic) tends to have a higher and sharper central peak, with longer and fatter tails. In contrast, a distribution with a negative kurtosis tends to be too flat (platykurtic) with a lower and broader central peak and shorter and thinner tails.

3.7.3 Phase 3: Inferential testing

The third and final phase of the data analysis process addressed the inferential section of the sample whereby the application of statistics will either infer the truth or falsify the research propositions (or stated research objectives). This section was used to address the majority of the research propositions or objectives. Pearson product-moment correlation (*r*) and linear and multiple regression analysis were used to determine the bivariate and multivariate relationships between the variables and their subscales. An analysis of variance (ANOVA) and regression analysis were also performed to determine the relationships between job demands, job resources, work engagement and turnover intentions.

Correlation analysis was applied to provide an indication of the degree to which the changes in one variable can be associated with the changes in another. Correlation coefficients can range from -1.00 (representing a perfect negative correlation) to +1.00 (representing a perfect positive correlation). A value of 0.00 is indicative of a lack of correlation between the variables compared. The Pearson product moment correlation coefficient (*r*) is considered the most widely used correlation index, according to Graziano and Raulin (2000), providing an indication of the degree of linear relationship between two variables.

For the purposes of any study, it is important to take into consideration the potential impact of sample size on the number of correlations. As larger sample sizes may provide an overinflated number of correlations with statistical significance, it makes it more challenging to interpret the relationships between variables in a meaningful way. It is, therefore, recommended that generally accepted interpretation guidelines should be applied to assist with the description of correlations, such as Guilford's guidelines (1956, cited in Harris, 2012) presented in Table 3.6.

Table 3.6: Guilford's (1956) guidelines to explain and interpret correlation coefficients

Correlation coefficient category	Explanation
< 0.20 = < 4%	Slight, almost negligible relationship.
0.20 – 0.40 = 4% – 16%	Low correlation. Definite, but small relationship.
0.40 – 0.70 = 16% – 49%	Moderate correlation. Substantial relationship.
0.70 – 0.90 = 49% – 81%	High correlation. Clear, discernible relationship.
> 0.90 = 81%+	Very high correlation. Dependable relationship.

A high correlation (> 0.7) amongst the dimensions (categories) would suggest that all the dimensions (categories) share a common variance.

Regression analysis was conducted to establish the strength of the variance between the different theoretical dimensions (categories). Adjusted R-square calculations were performed to establish to what extent one dimension (category) impacts the strength of variance in another dimension (category). The coefficient of determination (R^2) is used to either predict future outcomes or to test research proposition on the basis of other related information. A high R-square (R^2) value (> 0.5) will indicate a large amount of variance explained by the respective predictors.

Regression analysis is also applied to calculate mediating effects between the research variables of interest. According to Baron and Kenny (1986), it may be assumed that a variable function as a mediator (MED) to the extent that it accounts for the relationship between the independent (X) and dependent (Y) variables. The general test of mediation includes a series of steps in which regression analysis is applied to investigate the following:

- Step 1: The simple linear regression of X $\rightarrow$Y while disregarding the mediator
- Step 2: The simple linear regression of X $\rightarrow$MED
- Step 3: The simple linear regression of MED $\rightarrow$Y
- Step 4: The multiple regression analysis with the X and MED predicting Y

Mediation is, however, conditional on establishing significant relationships between the variables outlined in steps one to three (Baron & Kenny, 1986). If there is statistical evidence to support the report of significant relationships in the first three steps, step four will provide information on whether X and MED remain significant predictors of Y. If the X (independent variable) is no longer significant when MED (mediator) is controlled, the finding will support full

or complete mediation. If the X (independent variable) is still significant (i.e. both X and MED significantly predict Y), the finding will support partial mediation.

Regression analysis also forms the basis of the process to determine the potential moderating effect of a third variable on the relationship between two variables (X and Y). In statistics and regression analysis, moderation occurs when the direction and/or strength of the relationship between the independent (X) and dependent (Y) variables is affected or impacted by a third variable (Baron & Kenny, 1986). The third variable is referred to as the moderator variable (MOD) or simply the moderator. In order to confirm if a third variable has a moderating effect on the relationship between the two variables (X and Y), it must be proven that the nature of this relationship changes as the values of the moderating variable (MOD) changes, according to Hayes (2012). These path conditions (Figure 3.1) were outlined by Awan and Akram (2012) as follows:

- Condition 1 (path A): Determine if there is a significant interaction/relationship between the independent variable (X) and dependent variable (Y).
- Condition 2 (path B): Determine if there is a significant interaction/relationship between the moderator variable (MOD) and the dependent variable (Y).
- Condition 3 (path C): Determine if there is a significant interaction/relationship between the interaction variable (XMOD) and the dependent variable (Y).

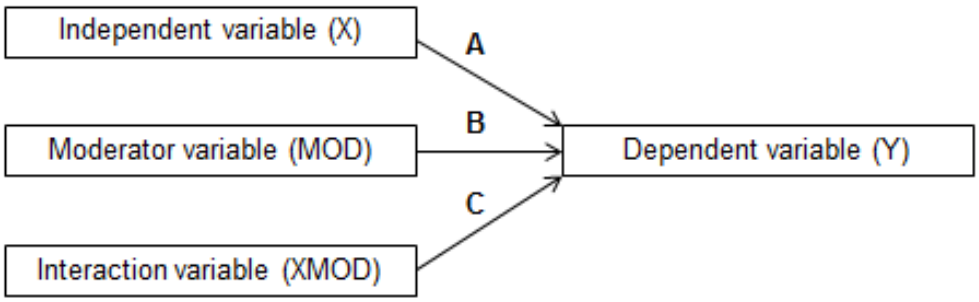

Figure 3.1: The three path conditions (path A, B and C) assessed during moderation analysis

According to Baron and Kenny (1986), there are three path conditions that must be fulfilled to support the moderation impact. If the independent variable (X) and moderator variable (MOD) are not significantly related to the dependent variable (Y) with the interaction variable included, then complete moderation has occurred. If the independent variable (X) and moderator variable (MOD) are found to be significantly related to the dependent variable (Y) with the

interaction variable included, then moderation will still have occurred, but the main effects will also be significant. No moderating effect will, however, be evident should the interaction variable not be significant.

3.8 Conclusion

Chapter 3 provided a description of the research design and supporting methodology selected to assist the researcher in obtaining answers to the research question. Based on the literature review covered in chapter 2, a structural model was provided as graphic representation of the theorised relationships to be investigated as premises to this study. A quantitative research methodology was applied to collect data for the purposes of this research process. Probability or random sampling was used as sampling technique to ensure an appropriate sample group was selected to form the basis of the study. According to Kumar (2008), random sampling implies that each element of the population has an equal probability of being selected as part of the sample, and all choices are independent of one another.

The quantitative data was collected from the employees within an IT division of a South African retail bank through the use of a self-administered, web-based questionnaire. The questionnaire consisted of items eliciting the participants' biographical and employment information and responses to three validated measuring instruments, including the Utrecht Work Engagement Scale (UWES-17) designed by Schaufeli et al. (2002), the Job Demands-Resources (JD-R) Scale (Jackson & Rothmann, 2005), and Roodt's (2004) Turnover Intentions Scale (TIS). Active measures were taken during the subsequent stages of the research and data gathering to ensure the confidentiality of the research participants and their subsequent feedback could be assured.

The various statistical techniques applied to analyse the presented data and to test the proposed relationships in three broad phases were described in this chapter. During the first phase, the validity and reliability of the applied measurement models will be confirmed through CFA followed by EFA. Various descriptive statistics will be employed during the second phase of data analysis to describe the basic features of the research data after problematic items were removed during the first phase. The third and final analysis phase will consist of inferential testing of the sample in an attempt to either infer the truth, or falsify the research propositions through the application of correlation and regression analysis. The next chapter will present the research findings obtained during the three phases of statistical analysis.

4 Chapter 4: Reporting of results

4.1 Introduction

The preceding chapter provided an overview of the intended research approach and design of this study. A description of the biographical and demographic profile of the research participants were provided, including categorisation of the respondents in terms of age, gender, group/equity profile and years of service within the organisation. The benefits and potential challenges associated with the application of web-based questionnaires as preferred method for the data collection were also presented. An overview was also provided of the validated and reliable instruments selected to measure the various variables of interest during this research project. Chapter 3 was concluded by giving insight into the specific techniques to be applied to conduct the statistical analysis to the presented data, and to test the various proposed relationships.

The main purpose of chapter 4 is to analyse and report on the results of the various statistical analysis performed on the data collected during this research study. This chapter is structured according to the three phases of data analysis applied. During the first phase, the appropriate measurement model is validated through the application of confirmatory and exploratory factor analysis. This phase is concluded by determining the reliability of the new measurement instrument. Descriptive techniques will then be applied during the second phase to provide a description of the basic characteristics or features of the new measurement model. The third and final phase will require inferential testing via correlation and regression analysis to analyse the data and test the proposed relationships. In conclusion of the chapter, an interpretation of the results will be provided to either infer the truth or reject the stated research propositions.

4.2 Phase 1: Determining the appropriate measurement model

The first phase of the data analysis focuses on determining the validity of the selected measurement instruments when applied to the selected research sample. The test of internal consistency or reliability of the measurement instruments and its respective supporting dimensions will conclude this phase of the data transformation process.

4.2.1 Validity of the questionnaires and supporting dimensions

Factor analysis was applied to each questionnaire to confirm the validity of the dimensions. Confirmatory factor analysis (CFA) was carried out to determine how well the original measurement model fitted the data of the South African sample. If the data demonstrated an acceptable fit with the original measurement model, the original conceptualisation of the measuring instruments was deemed appropriate for use to analyse the data gathered from the research sample. If the data demonstrated a poor or unacceptable fit, exploratory factor analysis (EFA) was conducted to determine which specific items do not converged satisfactorily on the factors and need to be excluded from future factor analysis. The CFA and EFA processes were concluded by comparing the fit statistics for the original and the new measurement models. Should the new measurement model provide a better fit for the research data, the new model will be applied during all ensuing data analysis.

4.2.1.1 Validating the Job Demands-Resources Scale (JDRS) and its dimensions

As a first step in validating the original JDRS measurement model, CFA was performed to determine if the research data fit a hypothesized measurement model. The model did not converge, and hence, it did not seem plausible to use the original factor structure of the instrument. In an attempt to determine a more appropriate factor structure for the JDRS for the current sample, the described steps for EFA were performed. The results of the first round of EFA are displayed in Table 4.1.

Table 4.1: Initial Eigenvalues for the JDRS during the first round of EFA

	Initial Eigenvalues
Factor	**Total**
1	13.368
2	3.551
3	3.320
4	2.674
5	1.750
6	1.674
7	1.598
8	1.454
9	1.265
10	1.119

Factor	Initial Eigenvalues
	Total
11	1.052
12	0.998
13	0.905
14	0.866
15	0.774
16	0.738
17	0.700
18	0.663
19	0.603
20	0.572
21	0.559
22	0.557
23	0.496
24	0.485
25	0.423
26	0.415
27	0.410
28	0.398
29	0.379
30	0.362
31	0.339
32	0.334
33	0.310
34	0.289
35	0.280
36	0.255
37	0.238
38	0.227
39	0.220
40	0.209
41	0.196
42	0.181
43	0.175
44	0.152
45	0.149

The first round of EFA utilised geomin factoring and presented eleven factors with Eigenvalues larger than 1.0 (highlighted in Table 4.1) which are indicators of the number of possible factors

in the structure. An eleven-factor structure was, therefore, inspected during factor analysis to determine any problematic items in the measurement instrument. Item loadings on the factors were examined to determine any problematic items that needed to be removed from further analysis. The results of the analysis are displayed in Table 4.2.

Table 4.2: JDRS – Item loadings in the first round of EFA

	Factor										
Item	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
JDRS1	0.581*	0.080	0.067	-0.097	-0.049	-0.012	0.205	-0.052	-0.044	0.073	-0.057
JDRS2	0.701*	-0.155	-0.022	0.003	-0.043	0.127	0.036	-0.011	0.122	-0.001	-0.129
JDRS3	-0.376*	-0.065	0.011	0.031	0.001	0.008	-0.054	0.101	-0.104	-0.027	0.095
JDRS4	0.629*	-0.055	0.069	-0.179	0.091	-0.029	0.136	-0.005	-0.018	0.020	0.054
JDRS5	0.529*	0.097	0.044	0.136	0.166	0.002	-0.109	0.065	-0.041	-0.191	0.013
JDRS6	0.585*	0.010	-0.058	0.169	0.082	-0.013	-0.103	0.090	0.035	-0.100	-0.010
JDRS7	0.013	0.067	0.737*	-0.089	0.104	0.003	0.067	0.036	0.078	-0.023	-0.085
JDRS8	0.147	-0.117	0.590*	0.090	-0.040	-0.073	-0.117	-0.074	-0.089	0.005	0.041
JDRS9	-0.053	-0.030	0.710*	-0.036	-0.085	0.017	-0.018	0.030	0.003	0.001	-0.020
JDRS10	0.089	-0.202	0.099	0.183	-0.093	0.100	0.046	0.136*	-0.279*	-0.083	0.036
JDRS11	0.256*	0.462*	-0.104	0.103	-0.003	-0.060	0.056	0.196*	0.139	0.017	0.053
JDRS12	0.230*	0.495*	0.048	-0.089	0.013	0.048	-0.101	0.091	0.158	0.125	0.076
JDRS13	-0.027	0.608*	0.004	0.072	-0.058	-0.021	-0.013	0.011	0.181	0.238	-0.016
JDRS14	0.110	0.539*	-0.020	0.045	0.211*	-0.016	-0.039	0.040	0.070	0.170	-0.038
JDRS15	-0.024	0.722*	0.049	0.119	0.014	0.002	0.343*	-0.011	-0.030	-0.129	0.004
JDRS16	0.013	0.481*	-0.065	0.000	0.070	0.127	0.325*	-0.018	-0.091	-0.148	0.222*
JDRS17	-0.012	0.415*	-0.013	-0.031	0.058	0.023	0.503*	-0.137*	0.031	-0.005	0.093
JDRS18	0.068	0.427*	-0.041	-0.020	-0.068	0.125	0.484*	0.051	-0.055	0.039	-0.069
JDRS19	-0.024	0.043	-0.056	0.080	0.020	0.752*	-0.004	-0.030	0.030	0.070	-0.030
JDRS20	-0.019	-0.028	0.020	-0.002	0.010	0.909*	0.018	0.055	0.042	0.014	0.065
JDRS21	0.063	0.016	0.012	-0.003	0.247*	0.455*	-0.039	-0.050	-0.035	0.006	0.141*
JDRS22	-0.077	0.065	-0.035	0.077	0.719*	0.092	0.070	-0.035	-0.006	0.046	-0.046

	Factor										
Item	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
JDRS23	0.022	0.027	0.022	0.034	0.839*	0.087	-0.012	0.046	0.032	-0.031	0.040
JDRS24	-0.019	-0.029	-0.051	0.208	0.541*	-0.003	0.249	0.058	0.134*	0.079	0.035
JDRS25	0.099	0.100	0.012	0.703*	-0.013	0.029	-0.031	-0.074	-0.171*	-0.032	-0.015
JDRS26	0.159	0.158	0.007	0.583*	-0.049	0.067	-0.061	-0.044	-0.154	0.041	0.027
JDRS27	0.026	-0.081	0.007	0.515*	0.151	-0.072	0.457*	0.027	0.120	0.020	-0.020
JDRS28	-0.067	0.157	0.070	0.523*	0.057	0.025	0.092	-0.029	0.032	0.152	0.133*
JDRS29	-0.021	0.038	-0.053	0.669*	0.032	0.038	0.232	0.046	0.005	0.042	-0.006
JDRS30	-0.056	-0.061	-0.086	0.504*	0.153	-0.051	0.369	0.050	0.097	0.043	0.038
JDRS31	-0.065	-0.005	-0.041	0.284*	0.104	0.055	0.047	0.089	-0.048	0.524*	-0.023
JDRS32	-0.015	-0.014	-0.044	0.348*	0.036	0.047	0.052	0.104*	0.043	0.550*	0.015
JDRS33	0.113	0.063	-0.063	0.259	0.116	0.035	-0.060	-0.067	-0.170	0.490*	0.064
JDRS34	0.046	0.016	-0.020	-0.057	0.594*	0.000	0.030	-0.078	-0.041	0.307*	0.075
JDRS35	0.028	0.208	0.067	0.018	0.195*	-0.017	0.346*	-0.011	-0.072	0.378*	0.019
JDRS36	0.219*	0.004	0.113	0.116	-0.088	0.011	0.404*	0.015	0.021	0.409*	0.027
JDRS37	0.116	0.085	0.007	0.073	0.082	0.136*	0.093	-0.065	0.008	-0.003	0.469*
JDRS38	-0.009	-0.072	-0.010	-0.044	-0.004	0.021	0.006	0.028	0.029	0.024	0.932*
JDRS39	-0.045	0.071	-0.026	0.084	-0.011	-0.025	-0.010	0.015	0.000	0.037	0.808*
JDRS40	0.066	-0.040	-0.019	-0.013	-0.031	0.024	0.031	0.949*	-0.050	0.002	0.019
JDRS41	0.008	0.050	0.045	-0.016	0.045	0.002	0.012	0.960*	-0.009	-0.026	-0.008
JDRS42	-0.074	0.087	-0.006	0.023	0.002	-0.039	-0.050	0.770*	0.000	0.041	-0.031
JDRS43	-0.004	0.086	-0.003	0.149	-0.019	0.044	-0.032	-0.043	0.751*	-0.043	0.041
JDRS44	0.116	0.035	-0.003	-0.043	-0.025	0.003	0.129	-0.122*	0.777*	0.009	0.008
JDRS45	0.009	-0.036	0.066	0.115	0.024	0.020	-0.007	-0.011	0.865*	-0.064	-0.003
JDRS46	0.028	0.243*	-0.048	-0.018	0.045	0.072	-0.017	0.022	0.643*	0.092	-0.006

	Factor										
Item	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
JDRS47	-0.020	0.299*	-0.026	-0.036	0.026	0.005	0.108	-0.038	0.110	0.310*	0.047
JDRS48	-0.158	0.264*	0.000	0.146	0.039	0.109	-0.025	-0.001	0.105	0.264	-0.042

Inspection of the JDRS items during the first round of EFA indicated significant cross-loadings (more than 0.250) of a number of the items. The cross-loading items (indicated with shading in Table 4.2) would need to be eliminated in order to meet the inclusion criteria for further analysis. In an attempt to determine a more appropriate factor structure for the JDRS for the current sample, a second round of EFA was performed where the cross-loading items were excluded. The analysis yielded the results as displayed in Table 4.3.

Table 4.3: Initial Eigenvalues for the JDRS during the second round of EFA

	Initial Eigenvalues
Factor	**Total**
1	10.228
2	3.106
3	2.545
4	1.965
5	1.663
6	1.447
7	1.366
8	1.252
9	1.113
10	1.033
11	0.914
12	0.901
13	0.852
14	0.744
15	0.732
16	0.674
17	0.625
18	0.556
19	0.551
20	0.522
21	0.463
22	0.451
23	0.425
24	0.414
25	0.400
26	0.369
27	0.346
28	0.337

	Initial Eigenvalues
Factor	**Total**
29	0.296
30	0.275

The second round of EFA utilised geomin factoring and presented ten factors with Eigenvalues larger than 1.0, which are indicators of the number of possible factors. These specific Eigenvalues are highlighted in Table 4.3. The ten-factor structure was subsequently inspected during factor analysis to examine the loading of items on the factors, and to determine any problematic items that needed to be removed from further analysis. The results of this analysis are displayed in Table 4.4.

Table 4.4: JDRS – Item loadings in the second round of EFA

	Factor									
Item	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
JDRS1	0.213*	-0.081	0.015	-0.184	0.010	0.299*	-0.110	-0.131	0.113	0.198*
JDRS2	0.012	0.062	0.168	0.066	0.281*	0.041	-0.214*	-0.127	0.089	-0.006
JDRS4	0.039	0.185	0.232*	0.051	0.209	0.059	-0.230*	-0.194*	0.071	-0.150*
JDRS5	-0.026	-0.085	0.040	0.320*	-0.433*	-0.057	-0.196	0.010	-0.050	-0.077
JDRS6	-0.257*	-0.023	0.065	0.052	0.181*	-0.179	0.072	0.199*	-0.032	-0.242*
JDRS7	0.322*	-0.075	0.060	0.184	0.435*	-0.061	0.030	0.008	-0.024	-0.026
JDRS8	0.428*	-0.029	0.013	-0.066	0.460*	-0.046	-0.011	0.181*	-0.103	-0.018
JDRS9	-0.209*	-0.043	0.027	-0.016	-0.376*	0.068	-0.088	-0.006	0.068	0.113
JDRS11	0.676*	0.054	0.057	0.119	0.014	-0.017	0.003	-0.011	0.015	0.059
JDRS12	0.578*	0.029	-0.038	-0.017	0.170	0.038	0.085	-0.002	-0.003	0.060
JDRS13	-0.002	0.050	0.688*	0.043	0.045	-0.089	0.044	0.018	-0.115	0.050
JDRS14	0.184*	-0.212	0.572*	-0.082	-0.045	0.084	-0.026	-0.057	0.031	-0.070
JDRS15	-0.053	-0.161	0.704*	-0.069	0.014	-0.045	0.003	0.075	-0.034	0.050
JDRS19	-0.036	-0.020	0.001	0.237	0.032	0.129	0.623*	0.006	0.019	-0.033
JDRS20	0.048	0.237*	0.009	0.160	0.047	0.043	0.606*	-0.020	0.015	0.007
JDRS21	0.064	0.045	0.037	0.567*	-0.034	0.025	0.336*	-0.030	0.042	0.029
JDRS22	0.097	0.036	-0.059	0.608*	-0.079	-0.033	0.045	0.071	0.266*	0.028
JDRS23	-0.051	0.087	-0.041	0.694*	0.048	0.054	-0.047	-0.012	0.083	-0.083
JDRS24	0.002	-0.029	-0.068	0.552*	0.193	0.131	0.030	0.082	-0.043	0.099
JDRS25	0.012	0.028	-0.024	0.011	-0.019	0.154	0.024	0.801*	0.067	-0.044
JDRS26	0.010	0.035	0.021	0.032	0.016	0.097	-0.057	0.778*	0.173	0.037

	Factor									
Item	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
JDRS28	0.004	0.828*	-0.019	0.020	-0.125	0.040	0.015	0.057	-0.041	-0.042
JDRS29	0.094	0.902*	0.025	-0.015	-0.104	-0.081	0.036	0.051	0.048	0.036
JDRS30	-0.023	0.730*	-0.063	0.023	0.033	0.157	-0.023	0.003	0.012	0.069
JDRS31	0.320*	-0.021	0.001	0.060	-0.234*	0.509*	0.015	0.014	-0.007	-0.050
JDRS33	0.003	0.366*	0.004	0.111	0.034	0.373*	-0.080	-0.033	-0.064	0.079
JDRS34	0.047	0.153	0.058	0.067	-0.131	0.449*	0.166*	0.060	0.127*	-0.036
JDRS37	-0.029	0.077	-0.052	0.032	-0.077	0.710*	0.069	0.044	-0.055	0.031
JDRS38	-0.046	0.056	-0.040	-0.042	0.017	0.759*	0.155	0.060	-0.018	0.045
JDRS39	0.041	0.073	-0.059	-0.037	0.075	0.537*	0.151	0.054	0.103	-0.080
JDRS40	-0.078	0.656*	-0.036	-0.031	0.152	0.107	0.021	-0.007	0.087	-0.077
JDRS41	-0.118*	0.235*	0.033	0.305*	0.214*	0.333*	0.039	-0.033	0.018	0.000
JDRS42	-0.012	-0.029	0.060	0.150	0.489*	0.488*	-0.051	0.005	0.022	0.028
JDRS43	0.162*	0.078	0.007	0.117	0.060	0.094	-0.013	0.104	0.488*	-0.078
JDRS44	-0.042	0.012	-0.004	-0.025	0.016	-0.048	-0.019	0.027	0.903*	0.015
JDRS45	-0.038	-0.017	-0.015	0.020	-0.037	0.009	0.126	-0.024	0.865*	0.020
JDRS46	0.017	-0.020	-0.018	0.006	0.045	0.017	-0.014	0.018	0.020	0.985*
JDRS47	-0.007	0.069	0.053	0.030	-0.021	-0.007	0.068*	-0.006	-0.025	0.920*

According to the results in Table 4.4, a further 12 items were identified due to the cross-loadings or loadings of less than 0.300. These items were highlighted in Table 4.4, and were excluded from further analysis. A third round of EFA was subsequently carried out to examine the loadings of the remaining items, with the results presented in Table 4.5.

Table 4.5: Initial Eigenvalues for the JDRS during the third round of EFA

	Initial Eigenvalues
Factor	**Total**
1	8.521
2	2.272
3	1.896
4	1.509
5	1.259
6	1.208
7	1.135
8	0.994
9	0.937
10	0.789
11	0.594
12	0.573
13	0.562
14	0.456
15	0.421
16	0.402
17	0.390
18	0.359
19	0.328
20	0.299
21	0.224
22	0.211
23	0.202
24	0.195
25	0.187
26	0.075

Based on the highlighted results in Table 4.5, the third round of EFA presented seven factors with Eigenvalues larger than 1.0, providing an indication of the number of possible factors. As a next step, factor analysis was conducted on a seven-factor structure to determine if there were

still any problematic items in the measurement instrument that needed to be removed from further analysis. The results of the analysis are displayed in Table 4.6.

Table 4.6: JDRS – Item loadings in the third round of EFA

	Factor						
Item	**1**	**2**	**3**	**4**	**5**	**6**	**7**
JDRS5	-0.098	-0.071	0.104	0.021	-0.180	0.008	-0.083
JDRS11	0.283*	0.119	0.215	-0.014	-0.050	0.036	0.122
JDRS12	0.211*	0.063	0.158	0.015	0.047	-0.005	0.122
JDRS13	0.689*	0.013	0.093	-0.031	-0.038	-0.094	0.009
JDRS14	0.610*	-0.209	-0.052	-0.053	0.064	0.053	-0.071
JDRS15	0.648*	-0.186	-0.076	0.074	-0.046	-0.018	0.015
JDRS19	0.010	-0.014	0.441*	0.039	0.310*	-0.048	-0.042
JDRS20	0.046	0.230*	0.379*	0.024	0.238*	-0.058	0.008
JDRS22	-0.047	0.006	0.662*	0.053	-0.086	0.286*	0.026
JDRS23	-0.027	0.068	0.640*	-0.082	0.040	0.139	-0.110
JDRS24	-0.004	-0.062	0.606*	0.021	0.133	-0.013	0.083
JDRS25	-0.028	-0.008	-0.010	1.062*	0.007	-0.012	-0.022
JDRS26	0.024	0.054	0.045	0.640*	0.035	0.143*	0.025
JDRS28	-0.052	0.852*	-0.026	0.049	0.033	-0.051	-0.042
JDRS29	0.044	0.911*	0.005	0.028	-0.062	0.035	0.037
JDRS30	-0.064	0.722*	0.006	-0.009	0.130	0.035	0.075*
JDRS34	0.040	0.192*	0.076	0.066	0.412*	0.144*	-0.017
JDRS37	-0.062	0.052	0.020	0.005	0.728*	-0.005	0.044
JDRS38	-0.025	-0.021	-0.017	-0.003	0.916*	0.014	0.050
JDRS39	-0.021	0.087	0.028	0.060	0.544*	0.099	-0.054
JDRS40	-0.022	0.621*	0.041	-0.030	0.123	0.083	-0.077
JDRS43	0.083	0.101	0.143	0.039	0.076	0.507*	-0.064
JDRS44	-0.003	-0.010	-0.068	-0.004	-0.025	0.951*	0.014
JDRS45	-0.038	0.000	0.030	-0.001	0.041	0.813*	0.022
JDRS46	-0.024	-0.037	-0.015	0.001	0.013	0.028	0.996*
JDRS47	0.021	0.051	0.018	-0.010	0.013	-0.024	0.913*

During the third round of factor analysis, items JDRS5, JDRS11 and JDRS12 did not have a loading of more than 0.300 on any of the factors, whilst JDRS19 demonstrated cross-loadings on two factors. A fourth round of EFA was conducted with these items excluded to examine the

loadings of the remaining items. The results of this fourth round of EFA are presented in Table 4.7 (only Eigenvalues greater than one are reported).

Table 4.7: Initial Eigenvalues for the JDRS during the fourth round of EFA

	Initial Eigenvalues
Factor	**Total**
1	8.147
2	2.100
3	1.715
4	1.420
5	1.206
6	1.093

Based on the highlighted results in Table 4.7, the fourth round of EFA supported a six-factor structure for the remaining 22 items. As a next step, factor analysis was conducted on a six-factor structure to determine if there were still any problematic items in the measurement instrument that needed to be removed from further analysis. The results of the analysis are displayed in Table 4.8.

Table 4.8: JDRS – Item loadings in the fourth round of EFA

	Factor					
Item	**1**	**2**	**3**	**4**	**5**	**6**
JDRS13	0.797*	0.280*	-0.021	-0.036	-0.084	0.014
JDRS14	0.639*	-0.087	-0.082	0.069	0.078	-0.057
JDRS15	0.716*	-0.060	0.056	-0.047	0.008	0.030
JDRS20	0.040	0.486*	0.077	0.207*	-0.072	0.020
JDRS22	0.007	0.423*	0.146*	-0.031	0.216*	0.014
JDRS23	0.053	0.501*	0.001	0.081	0.078	-0.126*
JDRS24	0.067	0.355*	0.113	0.156	-0.069	0.057
JDRS25	-0.060	-0.017	0.912*	0.045	-0.018	-0.036
JDRS26	0.008	0.037	0.783*	-0.005	0.110	0.029
JDRS28	-0.107	0.815*	0.031	0.001	-0.047	-0.036
JDRS29	-0.028	0.893*	0.013	-0.087	0.044	0.051
JDRS30	-0.097	0.733*	-0.044	0.105	0.033	0.068
JDRS34	0.025	0.261*	0.081	0.385*	0.137*	-0.004

	Factor					
Item	**1**	**2**	**3**	**4**	**5**	**6**
JDRS37	-0.055	0.064	0.003	0.730*	-0.019	0.041
JDRS38	-0.013	-0.031	-0.012	0.939*	-0.001	0.031
JDRS39	-0.041	0.113	0.050	0.531*	0.090	-0.074
JDRS40	-0.051	0.673*	-0.056	0.094	0.074	-0.098*
JDRS43	0.062	0.209*	0.092	0.066	0.483*	-0.061
JDRS44	-0.018	-0.019	-0.009	-0.030	0.925*	0.021
JDRS45	-0.053	0.037	-0.004	0.032	0.810*	0.023
JDRS46	-0.018	-0.049*	-0.004	0.032	0.028	0.940*
JDRS47	0.022	0.066*	0.000	0.000	-0.011	0.966*

The results from the fourth and final round of EFA on the JDRS instrument indicated that all the retained items meet the criteria for inclusion. The items that load on the respective factors are highlighted in Table 4.8.

- Factor 1 comprises of three items (JDRS13 to 15) from the original growth opportunities dimension, and relates to the availability of and access to enough variety of work, opportunities to learn and independence in work practices. This factor will remain *growth opportunities* for the current study.

- Factor 2 comprises of eight items (JDRS20, 22 to 24, 28 to 30, and 40) from the original organisational support and job security dimensions. These items mostly address topics related to the employee's relationship with management (managerial support) and colleagues (social support), the flow of information (communication), clear performance contracting and feedback, and perceptions about their future with the organisation. It is, therefore, suggested that this factor retain the name *organisational support* for the purposes of this study.

- Factor 3 comprises of two items (JDRS25 and 26) from the original organisational support dimension. As both of these items speak to the organisation of work (i.e. role clarity) and the extent to which individuals have a clear understanding of what is expected of them, it is recommended that this dimension be renamed to *role clarity* for the purposes of this study.

- Factor 4 comprises of four items (JDRS34, 37 to 39) from the original organisational support dimension. As these items address questions pertaining to the amount and

frequency of social interaction or engagement with colleagues and those working closely with the employee, it is suggested that this factor be renamed to *social support*.

- Factor 5 consists of three items (JDRS43 to 45) from the original advancement dimension, and poses questions about the individual's opinions about an organisation's pay structures, and their perceptions on the fairness of the payment practices. It is, therefore, recommended that this factor be renamed to *financial rewards*.

- Factor 6 is the final identified factor, and comprises of two items (JDRS46 and 47) from the original advancement dimension. As both of these items speak to progress in one's work, it is suggested that the dimension name *advancement* will be retained for the study.

The final factor structure was tested with CFA to determine the goodness-of-fit of the new measurement model for the research sample. The goodness-of-fit statistics for the new JDRS measurement model are displayed in Table 4.9.

Table 4.9: Results of the CFA for the new JDRS measurement model

	Indices		
Index	**Goodness-of-fit**	**Absolute**	**Incremental**
χ2	205.494		
Df	114		
P	0.0000		
χ2/df	1.803		
AIC	10004.111		
RMSEA		0.058	
SRMR		0.031	
CFI			0.969
TLI			0.937

Although the χ2/*df* statistic is slightly lower than the guideline of 2 to 5 at 1.803, the RMSEA value of 0.058 is below the guideline of 0.08, which confirms an acceptable model fit. The CFI and TLI indices results demonstrated acceptable model fit as both were greater than 0.9. The new JDRS measurement model consists of six dimensions, all belonging to the job resources category, in comparison with the five-factor structure of the original instrument. The original instrument indicated one dimension belonging to the job demands category, and four further dimensions that form part of the job resources category. As the job demand items from the

original factor structure did not load onto any of the factors in the new measurement model, this dimension could not be used in further analysis for this banking industry sample. Therefore, the new proposed six-factor structure of the JDRS was utilised for all subsequent data analysis of the responses of the sample.

4.2.1.2 Validating the Utrecht Work Engagement Scale (UWES-17) and its dimensions

The validity of the UWES measurement model was also determined through the application of factor analysis. As a first step, CFA was performed to determine if the research data fit a hypothesized measurement model (results in Table 4.10).

Table 4.10: Results of the CFA for the original UWES

	Indices		
Index	**Goodness-of-fit**	**Absolute**	**Incremental**
χ2	398.576		
Df	116		
P	0.000		
χ2/df	3.436		
AIC	11628.441		
RMSEA		0.101	
SRMR		0.072	
CFI			0.882
TLI			0.861

As shown in Table 4.10, the *χ2/df* ratio of the original UWES measurement model is within the recommended guideline of 2 to 5. Even though the goodness-of-fit indices indicate an acceptable model fit, the incremental indices (CFI and TLI) of 0.882 and 0.861 respectively indicate a less than acceptable model fit (value of ≥ 0.90 is deemed acceptable). Furthermore, the RMSEA of 0.101 is also above the guideline of 0.08. This suggests that the original structure of this measurement model does not fit the study sample well.

In an attempt to determine a more appropriate factor structure for the UWES for the current sample, the described steps for EFA were performed. The results of the first round of EFA are displayed in Table 4.11.

Table 4.11: Initial Eigenvalues for the UWES during the first round of EFA

	Initial Eigenvalues
Factor	**Total**
1	7.765
2	1.664
3	1.311
4	0.946
5	0.830
6	0.653
7	0.543
8	0.503
9	0.459
10	0.435
11	0.427
12	0.371
13	0.328
14	0.272
15	0.221
16	0.159
17	0.107

The first round of EFA utilised geomin factoring and presented three factors with Eigenvalues larger than 1.0 (7.765, 1.664 and 1.311 respectively) which are indicators of the number of possible factors. A three-factor structure was, therefore, inspected during factor analysis to determine any problematic items in the measurement instrument that needed to be removed from further analysis. The results of the analysis are displayed in Table 4.12.

Table 4.12: UWES - Item loadings in the first round of EFA

	Factor		
Item	**1**	**2**	**3**
WE1	0.894*	-0.006	0.004
WE2	0.897*	-0.007	-0.002
WE3	0.450*	0.431*	0.000
WE4	0.414*	0.056	0.290*
WE5	0.367*	0.155	0.064
WE6	0.168	0.303*	0.209*
WE7	0.011	0.850*	-0.105

	Factor		
Item	**1**	**2**	**3**
WE8	0.014	0.972*	-0.113
WE9	-0.013	0.992*	-0.104
WE10	0.018	0.774*	0.005
WE11	-0.252*	0.708*	0.071
WE12	0.153	0.384*	0.219*
WE13	0.115	-0.016	0.450*
WE14	0.223*	0.195	0.464*
WE15	-0.013	0.377*	0.517*
WE16	-0.032	0.000	0.736*
WE17	0.053	-0.033	0.614*

Inspection of the UWES items during the first round of factor analysis indicated cross-loadings for items WE3 and WE15. A second round of EFA was subsequently conducted with these two items removed and the results presented in Table 4.13.

Table 4.13: Initial Eigenvalues during the second round of EFA

	Initial Eigenvalues
Factor	**Total**
1	6.078
2	2.211
3	1.312
4	0.964
5	0.904
6	0.558
7	0.466
8	0.461
9	0.409
10	0.374
11	0.329
12	0.312
13	0.259
14	0.198
15	0.164

The second round of EFA utilised geomin factoring and again presented three factors with Eigenvalues larger than 1.0, which indicates the number of possible factors. As indicated by

Table 4.13, the Eigenvalues were 6.078, 2.211 and 1.312 respectively. The three-factor structure was, therefore, inspected during a second round of factor analysis to determine any problematic items in the measurement instrument. The results of the factor analysis after the removal of the problematic items are displayed in Table 4.14.

Table 4.14: UWES - Item loadings in the second round of EFA

	Factor		
Item	**1**	**2**	**3**
WE1	0.677*	0.155*	0.001
WE2	0.697*	0.065	0.000
WE4	0.809*	0.011	0.197*
WE5	0.271*	-0.022	0.375*
WE6	0.361*	-0.051	0.279*
WE7	0.013	0.882*	-0.005
WE8	-0.004	0.911*	-0.031
WE9	0.036	0.623*	0.300*
WE10	-0.135*	0.459*	0.253*
WE11	-0.071	0.432*	0.179
WE12	-0.153*	0.311*	0.394*
WE13	-0.098	0.305*	0.671*
WE14	0.010	0.380*	0.659*
WE16	0.046	0.297*	0.600*
WE17	0.243*	-0.004	0.534*

The second round of factor analysis demonstrated a three-factor solution for the remaining fourteen items (as displayed in Table 4.14). Item WE12 demonstrated a cross-loading of more than 0.250 and hence is excluded from a third round of exploratory factor analysis. The third round of EFA on the UWES again presented three Eigenvalues greater than zero with respective values of 5.781, 2.112, and 1.302. The three-factor structure was perused again to identify any further problematic items. The results are displayed in Table 4.15.

Table 4.15: UWES - Item loadings in the third round of EFA

	Factor		
Item	**1**	**2**	**3**
WE1	0.709*	0.149*	0.003
WE2	0.740*	0.060	-0.009
WE4	0.760*	0.001	0.247*
WE5	0.242*	-0.020	0.404*
WE6	0.300*	-0.063	0.342*
WE7	0.009	0.880*	-0.005
WE8	-0.006	0.912*	-0.038
WE9	0.052	0.646*	0.269*
WE10	-0.105	0.486*	0.196*
WE11	-0.020	0.459*	0.107
WE13	-0.107*	0.341*	0.647*
WE14	-0.001	0.414*	0.641*
WE16	0.028	0.322*	0.594*
WE17	0.221*	0.009	0.548*

After the inspection of the factor loadings obtained in the third round of EFA (results displayed in Table 4.15), it became evident that items WE6, WE14 and WE16 now present cross-loadings which differed more than 0.250. This necessitated a fourth round of EFA excluding these items. The fourth round of EFA presented three Eigenvalues greater than one, as per the previous rounds of EFA. The Eigenvalues were 4.425, 1.961, and 1.1012 respectively. Next the factor loadings were inspected for the three-factor solution with the remaining eleven items.

Table 4.16: UWES - Item loadings in the fourth round of EFA

	Factor		
Item	**1**	**2**	**3**
WE1	0.742*	0.095	0.003
WE2	0.809*	0.007	-0.052
WE4	0.756*	-0.007	0.187*
WE5	0.256*	-0.009	0.384*
WE7	-0.001	0.893*	-0.013
WE8	-0.016	0.911*	-0.019
WE9	0.112*	0.628*	0.258*
WE10	-0.084	0.454*	0.277*

	Factor		
Item	**1**	**2**	**3**
WE11	0.018	0.420*	0.159
WE13	-0.004	0.352*	0.592*
WE17	0.290*	0.006	0.517*

The results from Table 4.16 indicate that the removal of item WE13 from further analysis was warranted due to the cross-loading onto two factors. A fifth round of EFA was performed with the ten remaining items. The fifth round of EFA presented two Eigenvalues greater than one. These were 3.979 and 1.934 respectively. The factor loading matrix is presented in Table 4.17.

Table 4.17: UWES - Item loadings in the fifth round of EFA

	Factor	
Item	**1**	**2**
WE1	0.746*	0.035
WE2	0.784*	-0.069
WE4	0.825*	-0.002
WE5	0.361*	0.117
WE7	0.001	0.892*
WE8	-0.009	0.886*
WE9	0.183*	0.707*
WE10	-0.009	0.564*
WE11	0.058	0.484*
WE17	0.418*	0.174*

The results from the fifth round of EFA on the UWES instrument indicated that all the retained items meet the criteria for inclusion. The items that load on the respective factors are highlighted in Table 4.17.

- Factor 1 comprises of five items (WE1, 2, 4, 5 and 17) from the original vigour and absorption dimensions. These items specifically speak to the experience of vigour, resilience and being involved (absorbed) in your work. It is suggested that the factor name *vigour* be retained.

- Factor 2 comprises of five items (WE7 to 11) which all form part of the original *dedication* dimension.

The final factor structure was tested with CFA to determine the goodness-of-fit of the new measurement model for the research sample. The goodness-of-fit statistics for the new UWES measurement model are displayed in Table 4.18.

Table 4.18: Results of the CFA for a two-factor UWES measurement model

	Indices		
Index	**Goodness-of-fit**	**Absolute**	**Incremental**
χ2	110.178		
df	26		
p	0.000		
χ2/df	4.238		
AIC	6329.678		
RMSEA		0.116	
SRMR		0.051	
CFI			0.916
TLI			0.855

According to the data in Table 4.18, the *χ2/df* ratio of the new UWES measurement model is within the recommended guideline with a value of between 2 to 5. The RMSEA value of 0.116 falls outside of the acceptable range of between 0.02 and 0.08. Furthermore, the CFI and TLI indices results are very close to the 0.90 threshold indicating an acceptable model fit. Table 4.19 provides a comparative view of the original and new measurement models for the UWES.

Table 4.19: Comparison of original and new measurement models for the UWES

	Factor Structure	
Index	**Original**	**New**
χ2	398.576	110.178
df	116	26
p	0.000	0.000
χ2/df	3.436	4.238
AIC	11628.441	6329.678
RMSEA	0.101	0.116
SRMR	0.072	0.051
CFI	0.882	0.916
TLI	0.861	0.855

When comparing the goodness-of-fit statistics for the original and new structures of the UWES, the data in Table 4.19 clearly indicates that the AIC statistic for the new proposed structure (6329.678) is lower that the AIC index of the original structure (11628.441). Although a lower AIC statistic generally demonstrates a better fit when comparing competing models, the overall fit indices must also be taken into consideration. Based on the results in Table 4.19, the goodness-of-fit statistics of the original UWES indicate a better model fit for the RMSEA in comparison to the same measurement applied to the new proposed UWES model. However, the SRMR and CFI present better fit indices.

Therefore, even though the RMSEA of the new measurement model can be deemed as less than acceptable, the other fit indices indicate that it is the better model with a simple factor structure in comparison to the original UWES factor structure. A decision was, therefore, made to utilise the new two-factor structure of the UWES for all subsequent data analysis.

4.2.1.3 Validating the Turnover Intentions Scale (TIS) and its dimensions

Factor analysis was also conducted to determine the validity of the TIS measurement model. CFA was performed to determine if the research data fit a hypothesized measurement model (results indicated in Table 4.20).

Table 4.20: Results of the CFA for the original TIS measurement model

	Indices		
Index	**Goodness-of-fit**	**Absolute**	**Incremental**
χ2	383.667		
df	90		
p	0.000		
χ2/df	4.263		
AIC	10381.467		
RMSEA		0.117	
SRMR		0.094	
CFI			0.762
TLI			0.722

As shown in Table 4.20, the *χ2/df* ratio of the original TIS measurement model is within the recommended guideline of 2 to 5, but the RMSEA is higher than the acceptable level at 0.125. Even though the *χ2/df* ratio indicates an acceptable model fit, the incremental indices (CFI and

TLI) of 0.762 and 0.722 respectively indicate a less than acceptable model fit (value of ≥ 0.90 is deemed acceptable). This suggests that the original structure of this measurement model does not fit the study sample well. In an attempt to determine a more appropriate factor structure for the TIS for the current sample, the described steps for EFA were performed. The results of the first round of EFA are displayed in Table 4.21.

Table 4.21: Initial Eigenvalues for the TIS during the first round of EFA

	Initial Eigenvalues
Factor	**Total**
1	5.363
2	2.019
3	0.999
4	0.909
5	0.801
6	0.749
7	0.691
8	0.649
9	0.565
10	0.474
11	0.439
12	0.367
13	0.320
14	0.280
15	0.244

The first round of EFA utilised geomin factoring and presented two factors with Eigenvalues larger than 1.0 which are indicators of the number of possible factors. The Eigenvalues were 5.363 and 2.019 respectively as highlighted in Table 4.21. A two-factor structure was, therefore, inspected during factor analysis to determine any problematic items in the measurement instrument that needed to be removed from further analysis. The results of the analysis are displayed in Table 4.22.

Table 4.22: TIS - Item loadings in the first round of EFA

	Factor	
Item	**1**	**2**
TI1	0.418*	-0.298*
TI2	0.489*	-0.004
TI3	0.621*	-0.169
TI4	0.680*	-0.167
TI5	0.697*	0.034
TI6	0.664*	0.133
TI7	-0.025	0.811*
TI8	-0.081	0.688*
TI9	0.060	0.490*
TI10	0.112	0.573*
TI11	0.001	0.822*
TI12	0.004	0.757*
TI13	0.349*	-0.423*
TI14	-0.001	0.332*
TI15	-0.012	-0.525*

Inspection of the TIS items during the first round of EFA indicated a single item where the loading was less than 0.300. Item TI15 (as highlighted in Table 4.22) was excluded from a second round of EFA. A second round of EFA was subsequently conducted and the results presented in Table 4.23.

Table 4.23: Initial Eigenvalues for the TIS during the second round of EFA

	Initial Eigenvalues
Factor	**Total**
1	5.128
2	1.965
3	0.994
4	0.888
5	0.776
6	0.716
7	0.684
8	0.574
9	0.483

Factor	Initial Eigenvalues
	Total
10	0.439
11	0.422
12	0.366
13	0.292
14	0.273

The results of the second round of EFA utilised geomin factoring are presented in Table 4.23, again yielding two factors with Eigenvalues larger than 1.0 (5.128 and 1.965 respectively), which are indicators of the number of possible factors. A two-factor structure was, therefore, inspected again during a second round of factor analysis to determine any problematic items in the measurement instrument. The results of the second round of analysis after the removal of any problematic items are summarised in Table 4.24.

Table 4.24: TIS – Item loadings for the second round of EFA

Item	Factor	
	1	2
TI1	0.409*	-0.312*
TI2	0.488*	-0.006
TI3	0.618*	-0.172
TI4	0.676*	-0.174
TI5	0.701*	0.037
TI6	0.666*	0.132
TI7	-0.015	0.821*
TI8	-0.074	0.692*
TI9	0.060	0.485*
TI10	0.115	0.573*
TI11	0.003	0.819*
TI12	0.006	0.753*
TI13	0.341*	-0.433*
TI14	-0.002	0.328*

The second round of factor analysis demonstrates a two-factor solution for the remaining fourteen items (as displayed in Table 4.24). The results from the second round of factor analysis on the TIS instrument indicated that all the items meet the criteria for inclusion. The

items that load on the respective factors are highlighted in Table 4.24. The following factor structure emerged through the analysis:

- Factor 1 comprises of seven items (TI1 to 6, and 13) and encompasses items that refer to the exhibiting of certain actions or behaviours associated with disengagement and the seeking of alternative employment. It is, therefore, suggested that this factor should be renamed to *turnover intention behaviours* for the purposes of this study.

- Factor 2 also comprises of seven items (TI7 to 12, and 14) and is indicative of the frequency with which certain emotions associated with intention to leave are experienced, and the consideration of personal responsibilities outside of the work environment during the decision making process. It is recommended that this factor be specified as *affective turnover intentions* for this study.

The final factor structure was tested with CFA to determine the goodness-of-fit of the new measurement model for the research sample. The goodness-of-fit statistics for the new TIS measurement model are displayed in Table 4.25.

Table 4.25: Results of the CFA for a two-factor TIS measurement model

	Indices		
Index	**Goodness-of-fit**	**Absolute**	**Incremental**
χ2	121.47		
Df	64		
P	0.000		
χ2/df	1.897		
AIC	9367.798		
RMSEA		0.061	
SRMR		0.037	
CFI			0.951
TLI			0.930

As shown in Table 4.25, the RMSEA value of 0.061 is well within the acceptable range of between 0.02 and 0.08. The CFI and TLI indices results demonstrated acceptable model fit as both values are greater than 0.9. Table 4.26 provides a comparative view of the original and new measurement models for the TIS.

Table 4.26: Comparison of original and new measurement models for the TIS

	Factor Structure	
Index	**Original**	**New**
$\chi 2$	383.667	121.47
Df	90	64
P	0.000	0.000
$\chi 2 / df$	4.263	1.897
AIC	10381.467	9367.798
RMSEA	0.117	0.061
SRMR	0.094	0.037
CFI	0.762	0.951
TLI	0.722	0.930

When comparing the measurement model for the original and new structures of the TIS, Table 4.26 clearly indicates that the AIC statistic for the new proposed structure (9367.798) is lower than the AIC index of the original structure (10381.467). In support of this finding, the fit indices for the new model also indicated a better fit for all the reported indices. Therefore, the new proposed two-factor structure of the TIS was utilised for all subsequent data analysis of the responses of the sample.

4.2.2 Reliability of the measurement model

Through the exploratory factor analysis completed in the preceding section, problematic items in the instruments were removed. The factor structures of the JDRS, UWES and TIS were adapted based on the results of CFA and EFA. Reliability analysis was, subsequently, performed to determine whether the new measurement instruments would produce consistent results with continued application.

4.2.2.1 Reliability of the Job Demands-Resources Scale (JDRS) and its dimensions

The original JDRS measurement model consisted of 48 questions allocated to five dimensions. After revalidation of the questionnaire for the banking industry sample, the presence of six dimensions was confirmed. Table 4.27 presents the revised internal consistency of each dimension of the JDRS as measured by Cronbach alpha coefficients after the removal of problematic items.

Table 4.27: Revised internal consistency assessment: JDRS and supporting dimensions

Dimension	Cronbach's Alpha (α)	Number of items
Growth opportunities	0.802	3
Organisational support	0.844	8
Role clarity	0.798	2
Social support	0.781	4
Financial rewards	0.861	3
Advancement	0.571	2
Job Resources	**0.904**	**22**

Job resources were represented by 38 items in the original JDRS, consisting of four distinct dimensions. However, the new measurement model for the JDRS indicated six dimensions all belonging to the job resources category. These categories relate to growth opportunities (α = 0.802), organisational support (α = 0.844), role clarity (α = 0.798), social support (α = 0.781), financial rewards (α = 0.861) and advancement (α = 0.571). This resulted in a reliability coefficient for the combined job resources scale of 0.904.

4.2.2.2 Reliability of the Utrecht Work Engagement Scale (UWES-17) and its dimensions

The original UWES was represented by 17 items grouped into three distinct dimensions: vigour (six items), dedication (five items), and absorption (six items). During CFA and EFA, a total of seven items were removed in an effort to improve the internal reliability. The revised internal consistency scores for the UWES and its dimensions are indicated in Table 4.28.

Table 4.28: Revised internal consistency assessment: UWES and supporting dimensions

Dimension	Cronbach's Alpha (α)	Number of items
Vigour	0.741	5
Dedication	0.902	5
Work engagement	**0.886**	**10**

The two distinct dimensions of the new UWES model indicate acceptable reliability at 0.741 (vigour) and 0.902 (dedication) respectively. These overall high internal reliability scores contributed to a good internal consistency for the overall work engagement scale (α = 0.886).

4.2.2.3 Reliability of the Turnover Intentions Scale (TIS) and its dimensions

Turnover intentions were appraised using the 15 items of the original TIS. During CFA and EFA, a single item was removed in an attempt to increase the internal reliability. A two-factor solution was found in comparison to the one-factor solution of the original TIS structure. The revised internal consistency ratings for the new TIS and its supporting dimensions are listed in Table 4.29.

Table 4.29: Revised internal consistency assessment: TIS and supporting dimensions

Dimension	Cronbach's Alpha (α)	Number of items
Affective turnover intentions	0.017	7
Turnover intention behaviours	0.858	7

This resulted in the identification of two very distinct turnover intention dimensions, defined as affective turnover intentions (α = 0.017) and turnover intention behaviours (α = 0.858). The item-total statistics were consulted to see if the reliability of the affective turnover intentions dimension could be improved by deleting items. However, the Cronbach alpha reliability could only be improved to 0.117 by deleting item TI14. Due to the low Cronbach's alpha for the affective turnover intentions dimension, the internal reliability of the dimension is deemed unacceptable and not a reliable measurement. All further analysis and reporting will subsequently be based only on the acceptable internal reliability coefficient of the turnover intention behaviours dimension (α = 0.858).

4.3 Phase 2: Descriptive statistics

In phase 2, the descriptive statistics for the different scales applied in the study are presented in the following sections. Bothma (2011) describe descriptive statistics as the basis of quantitative data analysis, providing a simplistic summary of the data collected and the measures applied during any research study.

4.3.1 Descriptive statistics of the Job Demands-Resources Scale (JDRS) and its dimensions

The new factor structure of the JDRS and its dimensions (growth opportunities, organisational support, social support, financial rewards, role clarity and advancement) was utilised for the

calculation of descriptive statistics for the responses of the sample. These results are presented in Table 4.30.

Table 4.30: Summary descriptive statistics for scores on the JDRS and its dimensions

Dimension	Min	Max	M	SD	Skew	Kurt
Growth opportunities	1.00	4.00	2.87	0.69	-0.201	-0.405
Organisational support	1.50	4.00	2.91	0.59	-0.159	-0.655
Social support	1.75	4.00	3.28	0.59	-0.536	-0.559
Financial rewards	1.00	4.00	2.40	0.75	0.050	-0.510
Role clarity	1.00	4.00	3.21	0.65	-0.601	0.103
Advancement	1.00	4.00	2.50	0.75	0.145	-0.461
JOB RESOURCES	**1.68**	**3.86**	**2.89**	**0.47**	**-0.261**	**-0.422**

** M = Mean; SD = Standard deviation; Skew = Skewness; Kurt = Kurtosis*

According to the descriptive statistics in Table 4.30, the positive skewness scores for the financial rewards (0.050) and advancement (0.145) dimensions indicate that respondents tended to select scores towards the lower end of these two dimensions. This finding is supported by the mean (M) values of these supporting dimensions ranging between 2 (sometimes) and 3 (often) on the four-point Likert scale. In contrast, the negative skewness scores for the remaining dimensions (growth opportunities = -0.201, organisational support = -0.159, social support = -0.536, and role clarity = -0.601) speak to the respondents inclination to select rating options towards the higher values (M > 2) of the four-point Likert scale.

For the overall job resources dimension, the negative skewness rating is indicative of the propensity of the research sample to prefer a more favourable answering of the questions. The negative kurtosis statistic (-0.422) also suggests a data distribution varying from normality (platykurtic distribution) on these respective dimensions. The slight negatively skewed, lower peaked data distribution is, therefore, indicative of more scores at the higher end of the sample's data distribution.

4.3.2 Descriptive statistics of the Utrecht Work Engagement Scale (UWES-17) and its dimensions

The two dimensions (vigour and dedication*)* of the new factor structure of the UWES were utilised for the calculation of descriptive statistics for the responses of the sample. These results are presented in Table 4.31.

Table 4.31: Summary descriptive statistics for scores on the UWES and its dimensions

Dimension	Min	Max	M	SD	Skew	Kurt
WE_Vigour	0.80	6.00	3.69	0.90	-0.199	0.461
WE_Dedication	0.00	6.00	4.30	1.16	-0.798	0.789
WE_TOTAL	**0.50**	**5.80**	**3.99**	**0.94**	**-0.583**	**0.738**

** M = Mean; SD = Standard deviation; Skew = Skewness; Kurt = Kurtosis*

As evident from Table 4.31, the negative skewness scores for the vigour (-0.199) and dedication (-0.798) dimensions including the overall UWES scale (-0.583), indicate the respondents tended to score towards the higher end of the seven-point Likert scale. The negative skewness statistic is indicative of the tendency of the research sample towards a slightly more favourable answering of the individual questions of the UWES. This finding is supported by the mean (M) values of the UWES scale and the supporting dimensions range between 3 (rarely) and 4 (sometimes) on the seven-point Likert scale. Based on the positive kurtosis statistics for the overall UWES and supporting dimensions, it can be observed that the data distribution varies from normality (leptokurtic distribution). Therefore, the descriptive statistics of the overall work engagement item scores indicate a slight negatively skewed, higher peaked distribution – there are more scores at the high side of the distribution than in a normal distribution.

4.3.3 Descriptive statistics of the Turnover Intentions Scale (TIS) and its dimensions

The new two-factor structure of the TIS was utilised for the calculation of descriptive statistics for the responses of the sample. Due to the low reported internal consistency of the affective turnover intentions dimension ($\alpha = 0.017$), reporting on the descriptive statistics was based on the turnover intention behaviours dimension with an acceptable internal reliability coefficient of $\alpha = 0.858$. This result is presented in Table 4.32.

Table 4.32: Descriptive statistics of the TIS

Dimension	Min	Max	M	SD	Skew	Kurt
Turnover intention behaviours	1.00	5.00	2.38	0.77	0.587	-0.029

** M = Mean; SD = Standard deviation; Skew = Skewness; Kurt = Kurtosis*

According to the data in Table 4.32, the respondents of the survey were generally more inclined to select the questionnaire options towards the lower end of the overall TIS (M < 3), leading to a positive skewness (0.587) of the data set distribution. The negative kurtosis statistics (-0.029) is indicative of a data distribution that varies from normality (platykurtic distribution). Therefore, the descriptive statistics of the overall TIS scores indicate a slight positively skewed, lower peaked distribution – there are more scores at the lower end of the distribution than in a normal distribution. The participating population was, therefore, more inclined to select a rating of 1 (never) or 2 (rarely) on the items of the TIS scale during the completion of the questionnaire.

4.4 Phase 3: Inferential testing

The purpose of this section is to describe the results of the statistical calculations conducted to meet the empirical research objectives of the study. In the light of the aforementioned, the presented statistical findings were interpreted in terms of the propositions listed in Section 3.3. Where applicable, the propositions were adapted to reflect the new dimensions for each of the variables.

Proposition 1	Job resources (including growth opportunities, organisational support, role clarity, social support, financial rewards and advancement) explain a significant proportion of the variance in work engagement.

The primary purpose of proposition 1 was to determine to what extent the job resources dimensions (including growth opportunities, organisational support, role clarity, social support, financial rewards and advancement) explain a significant proportion of the variance in work engagement. The results of the multiple regression analysis, with work engagement as the dependent variable, can be seen in Table 4.33.

Table 4.33: Results of multiple linear regression analysis between work engagement and the job resources dimensions

Model Summary

Model	*R*	R^2	Adjusted R Square	Std. Error of the Estimate
1	.726[a]	.527	.515	.65140

a. Predictors: (Constant), Advancement, Role clarity, Social support, Financial rewards, Growth opportunities, Organisational support

ANOVA[a]

Model		Sum of Squares	df	Mean Square	*F*	Sig.
1	Regression	109.764	6	18.294	43.114	.000[b]
	Residual	98.442	232	.424		
	Total	208.206	238			

a. Dependent Variable: WORK ENGAGEMENT
b. Predictors: (Constant), Advancement, Role clarity, Social support, Financial rewards, Growth opportunities, Organisational support

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		Beta	Std. Error	β		
1	(Constant)	-.187	.294		-.637	.525
	Growth opportunities	.531	.085	.394	6.270	.000
	Organisational support	.182	.109	.115	1.679	.094
	Role clarity	.165	.075	.116	2.207	.028
	Social support	.400	.092	.253	4.320	.000
	Financial rewards	.142	.069	.113	2.064	.040
	Advancement	-.023	.082	-.018	-.277	.782

F(6,232) = 43.114; p < 0.01, Std Error of Estimate = 0. 65140

Table 4.33 provides an overview of the multiple linear regression analysis with work engagement as dependent variable, and growth opportunities, organisational support, role clarity, social support, financial rewards and advancement as independent variables. This specific multiple linear regression analysis produced a R^2 = 0.527, $F(6,232)$ = 43,114, p < 0.01. This result can be interpreted as indicating that the six independent variables (including growth opportunities, organisational support, role clarity, social support, financial rewards and advancement) together explain 52.7% of the variance observed in work engagement.

As can be seen in Table 4.33, the value of the beta coefficients suggest that growth opportunities (β = 0.394), role clarity (β = 0.116), social support (β = 0.253) and financial rewards (β = 0.113) make a significant contribution in explaining the variance in work engagement. The contributions of growth opportunities and social support are statistically significant at the 0.01 level, with financial rewards and role clarity contributing significantly to the variance in work engagement at the 0.05 level. Organisational support (β = 0.115, $p > 0.05$) and advancement (β = -0.018, $p > 0.05$), however, do not make a statistically significant contribution to the variance in work engagement at either the 0.01 or 0.05 levels.

From the results in Table 4.33, it can be concluded that only growth opportunities, social support, financial rewards and role clarity as job resources contribute significantly to the variance in work engagement as a dependent variable. Thus, proposition 1 is partially accepted.

Proposition 2	Job demands (overload) explain a significant proportion of the variance in work engagement.

The primary purpose of proposition 2 was to determine to what extent job demands explain a significant proportion of the variance in work engagement. As the new JDRS measurement model validated for the study does not include any items related to the job demands dimension, it was not possible to test this proposition. Thus, the finding for proposition 2 is inconclusive.

Proposition 3	Job demands moderate the relationship between job resources and work engagement

With proposition 3, the aim was to determine whether job demands moderate the relationship between job resources and work engagement. As with proposition 2, the absence of a job demands dimension means that proposition 3 cannot be tested. The result for proposition 3 is, therefore, also inconclusive.

Proposition 4	Job resources (including growth opportunities, organisational support, role clarity, social support, financial rewards and advancement) explain a significant proportion of the variance in turnover intentions.

The purpose of proposition 4 was to determine to what extent the job resources dimensions (including growth opportunities, organisational support, role clarity, social support, financial rewards and advancement) explain a significant proportion of the variance in turnover intention. Table 4.34 provides an overview of the results obtained after multiple linear regression analysis with turnover intentions as the dependent variable.

Table 4.34: Results of multiple linear regression analysis between turnover intentions and the job resources dimensions

Model Summary

Model	*R*	R^2	Adjusted R Square	Std. Error of the Estimate
1	.730[a]	.533	.521	.53225

a. *Predictors: (Constant),* Advancement, Role clarity, Social support, Financial rewards, Growth opportunities, Organisational support

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	75.021	6	12.503	44.136	.000[b]
	Residual	65.724	232	.283		
	Total	140.744	238			

a. *Dependent Variable: TURNOVER INTENTION BEHAVIOURS*
b. *Predictors: (Constant),* Advancement, Role clarity, Social support, Financial rewards, Growth opportunities, Organisational support

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		Beta	Std. Error	β		
1	(Constant)	5.475	.240		22.788	.000
	Growth opportunities	-.266	.069	-.240	-3.848	.000
	Organisational support	-.073	.089	-.056	-.821	.412
	Role clarity	.018	.061	.016	.298	.766
	Social support	-.304	.076	-.234	-4.021	.000
	Financial rewards	-.316	.056	-.306	-5.613	.000
	Advancement	-.170	.067	-.165	-2.531	.012

F(6,232) = 44.136; p < 0.01, Std Error of Estimate = 0.53225

Table 4.34 provides an overview of the multiple linear regression analysis with turnover intention behaviours as dependent variable, and growth opportunities, organisational support, role clarity, social support, financial rewards and advancement as independent variables. This specific multiple linear regression analysis produced a R^2 = 0.533, $F(6,232) = 44.136$, $p < 0.01$. This result can be interpreted as indicating that the six independent variables (growth opportunities, organisational support, role clarity, social support, financial rewards and advancement) together explain 53.3% of the variance observed in turnover intention.

As can be seen in Table 4.34, the value of the beta coefficients suggest that growth opportunities (β = -0.240), social support (β = -0.234) and financial rewards (β = -0.306) make significant contributions to explaining the variance in turnover intentions at the 0.01 level. Advancement (β = -0.165) made a significant contribution to the variance in turnover intentions at the 0.05 level. Organisational support (β = -0.056) and role clarity (β = 0.016) did, however, not make a significant contribution to the variance in turnover intentions at either the 0.01 or 0.05 levels.

From the results in Table 4.34, it can be concluded that the variance in growth opportunities, social support, financial rewards and advancement as job resources do explain to a greater or lesser extent the variance in turnover intentions as dependent variable. Thus, proposition 4 is partially accepted.

Proposition 5	Job demands (overload) explain a significant proportion of the variance in turnover intentions.

The primary purpose of proposition 5 was to determine to what extent job demands explain a significant proportion of the variance in turnover intentions. As the job demand dimension was not included in the new JDRS model, the result for proposition 5 is inconclusive.

Proposition 6	Work engagement has a statistically significant negative relationship with turnover intentions.

Proposition 6 aimed to determine if there is a significant inverted relationship between work engagement and turnover intentions. A negative correlation is a relationship between two variables such that as the value of one variable increases, the other decreases. The Pearson product-moment correlation result was consulted to determine if a significant relationship exists

between the levels of work engagement and turnover intensions. The results of the correlation analysis can be seen in Table 4.35.

Table 4.35: Results of correlational analysis between turnover intentions and work engagement

Correlations

		WORK ENGAGEMENT	TURNOVER INTENTIONS
WORK ENGAGEMENT	Pearson Correlation	1	-.615**
	Sig. (2-tailed)		.000
	N	239	239
TURNOVER INTENTIONS	Pearson Correlation	-.615**	1
	Sig. (2-tailed)	.000	
	N	239	239

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

According to the correlation data presented in Table 4.35, there exists a moderate correlation (*r* = -0.615) between the levels of work engagement and turnover intentions as defined by Guilfords' guidelines (1956, cited in Harris, 2012) outlined to explain and interpret correlation coefficients. The fact that the correlation coefficient has a negative value indicates that the increase in one variable will correspond to a decrease in the other. An increase in the levels of work engagement experienced by employees will, therefore, be associated with a decrease in their turnover intentions (and vice versa). Proposition 6 is, therefore, accepted.

Proposition 7	Work engagement mediates the relationship between job resources and turnover intentions.

With proposition 7, the aim was to determine if work engagement mediates the relationship between job resources and turnover intentions. As a first step in testing for mediation, simple linear regression analysis was utilised in an attempt to determine whether job resources as independent variable could provide an explanation for the variance in turnover intentions as dependent variable. The result of the simple linear regression analysis is reported in Table 4.36.

Table 4.36: Results of simple linear regression analysis between turnover intentions and job resources

Model Summary

Model	R	R^2	Adjusted R Square	Std. Error of the Estimate
1	.671[a]	.450	.448	.57140

a. Predictors: (Constant), JOB RESOURCES

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	63.363	1	63.363	194.067	.000[b]
	Residual	77.381	237	.327		
	Total	140.744	238			

a. Dependent Variable: Turnover intention behaviours
b. Predictors: (Constant), JOB RESOURCES

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		Beta	Std. Error	β		
1	(Constant)	5.523	.229		24.146	.000
	JOB RESOURCES	-1.087	.078	-.671	-13.931	.000

F(1,237) = 194.067; p < 0.01, Std Error of Estimate = 0.57140

Table 4.36 provides an overview of the simple linear regression analysis with turnover intentions as dependent variable, and job resources as independent variable. This specific simple linear regression analysis produced a R^2 = 0.450, $F(1,237)$ = 194.067, p < 0.01. This result can be interpreted as indicating that job resources as independent variable accounts for 45% of the variance observed in turnover intentions. Furthermore, the value of the beta coefficient suggests that job resources (β = -0.671) make a significant contribution to the variance in turnover intentions at the 0.01 level. The significance of the relationship between job resources as independent variable and turnover intentions as dependent variable has been proven, concluding step 1 of the test for mediation.

During step 2 in the test for mediation, simple linear regression analysis was conducted to determine whether job resources as independent variable could provide an explanation for the variance in work engagement as dependent variable. The result of the simple linear regression analysis is reported in Table 4.37.

Table 4.37: Results of simple linear regression analysis between work engagement and job resources

Model Summary

Model	R	R^2	Adjusted R Square	Std. Error of the Estimate
1	.692[a]	.479	.477	.67628

a. Predictors: (Constant), JOB RESOURCES

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	99.813	1	99.813	218.241	.000[b]
	Residual	108.393	237	.457		
	Total	208.206	238			

a. Dependent Variable: WORK ENGAGEMENT
b. Predictors: (Constant), JOB RESOURCES

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		Beta	Std. Error	β		
1	(Constant)	.046	.271		.169	.866
	JOB RESOURCES	1.364	.092	.692	14.773	.000

F(1,237) = 218.241; p < 0.01, Std Error of Estimate = 0.67628

Table 4.37 provides an outline of the results for the simple linear regression analysis between work engagement as a dependent variable and job resources as independent variable, producing a R^2 = 0.479, $F(1,237)$ = 218.241; p < 0.01. This result can be interpreted as indicating that job resources as independent variable accounts for 47.9% of the variance observed in work engagement. Furthermore, the positive weighted value of the beta coefficient suggests that job resources (β = 0.692) make a significant contribution to the variance in work engagement at the 0.01 level. The significance of the relationship between job resources as independent variable and work engagement as dependent variable has been confirmed, concluding step 2 of the test for mediation analysis.

The third step in the test for mediation requires applying simple linear regression analysis to determine whether work engagement as independent variable could provide an explanation for the variance in turnover intentions as dependent variable. The result of the simple linear regression analysis is reported in Table 4.38.

Table 4.38: Results of simple linear regression analysis between turnover intentions and work engagement

Model Summary

Model	R	R^2	Adjusted R Square	Std. Error of the Estimate
1	.615[a]	.379	.376	.60751

a. *Predictors: (Constant), WORK ENGAGEMENT*

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	53.274	1	53.274	144.347	.000[b]
	Residual	87.470	237	.369		
	Total	140.744	238			

a. *Dependent Variable: Turnover intention behaviours*
b. *Predictors: (Constant), WORK ENGAGEMENT*

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		Beta	Std. Error	β		
1	(Constant)	4.398	.173		25.477	.000
	WORK ENGAGEMENT	-.506	.042	-.615	-12.014	.000

F(1,237) = 144.347; p < 0.01, Std Error of Estimate = 0.60751

In Table 4.38, the results for the simple linear regression analysis between turnover intentions as a dependent variable and work engagement as independent variable are summarised. This simple linear regression analysis produced a R^2 = 0.379, $F(1,237)$ = 144.437; p < 0.01, indicating that work engagement as independent variable accounts for 37.9% of the variance observed in turnover intentions. Furthermore, the value of the beta coefficient suggests that work engagement (β = -0.615) makes a significant, although negative, contribution to the variance in turnover intentions at the 0.01 level. The significance of the relationship between work engagement as independent variable and turnover intentions as dependent variable has been proven, concluding step 3 of the test for mediation.

During the final step in testing for mediation, multiple linear regression analysis was applied to determine whether work engagement (the proposed mediator) and job resources as independent variable could provide an explanation for the variance in turnover intentions as dependent variable. The result of the multiple linear regression analysis is reported in Table 4.39.

Table 4.39: Results of multiple linear regression analysis between turnover intention, work engagement and job resources

Model Summary

Model	R	R^2	Adjusted R Square	Std. Error of the Estimate
1	.703[a]	.494	.490	.54944

a. *Predictors: (Constant), WORK ENGAGEMENT, JOB RESOURCES*

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	69.501	2	34.750	115.113	.000[b]
	Residual	71.244	236	.302		
	Total	140.744	238			

a. Dependent Variable: TURNOVER INTENTIONS
b. Predictors: (Constant), WORK ENGAGEMENT, JOB RESOURCES

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		Beta	Std. Error	β		
1	(Constant)	5.534	.220		25.159	.000
	JOB RESOURCES	-.762	.104	-.471	-7.331	.000
	WORK ENGAGEMENT	-.238	.053	-.289	-4.509	.000

F(2,236) = 115.113; p < 0.01, Std Error of Estimate = 0.54944

Table 4.39 provides an overview of the multiple linear regression analysis with turnover intentions as dependent variable, and job resources and work engagement as independent variables. This specific multiple linear regression analysis produced a R^2 = 0.494, $F(2,236)$ = 115.113, p < 0.01. This result indicates that job resources and work engagement as independent variables account for 49.4% of the variance observed in turnover intentions, including that the total model is also significant.

As can be seen in Table 4.39, the value of the beta coefficients suggest that both job resources (β = -0.471) and work engagement (β = -0.289) make significant contributions to the variance in turnover intentions at the 0.01 level. Based on these results, it can be concluded that the variance in job resources and work engagement do to a greater or lesser extent explain the variance in turnover intentions as dependent variable. As both job resources (as independent

variable) and work engagement (as mediator variable) significantly predict turnover intentions (as dependent variable), the finding supports partial mediation. Partial mediation maintains that the mediating variable accounts for some, but not all, of the relationship between the independent variable and dependent variable. Partial mediation implies that there is not only a significant relationship between the mediator and the dependent variable, but also some direct relationship between the independent and dependent variable. Thus, proposition 7 is partially accepted.

4.5 Conclusion

The purpose of chapter 4 was to report on and discuss the statistical results of the various analyses performed in the present study, including linking the reported results and the propositions set to address the research questions. The statistical analysis and data transformation processes were conducted in three broad phases. Firstly, the measurement models applied were validated through a process of CFA and EFA. Problematic items were identified and removed, after which reliability analyses were performed to confirm that the newly structured measurement instruments would produce consistent results with continued application. During the second phase of reporting, an overview of the descriptive statistics of the different scales applied during the study was offered. This overview aimed to provide a summary of the data collected and the measures applied during this specific research study.

The reporting phase of this study was concluded by providing a translation of the results obtained through the application of inferential statistics on the research data. Only a single proposition tested could be fully accepted based on the evidence from the statistical analysis. However, some propositions were inconclusive or only partially accepted, which lead to some noteworthy findings as outlined in Table 4.40.

Table 4.40: Summary of proposition testing

Number	Propositions to be tested	Outcome
Proposition 1	Job resources (including growth opportunities, organisational support, role clarity, social support, financial rewards and advancement) explain a significant proportion of the variance in work engagement.	Partially accepted

Number	Propositions to be tested	Outcome
Proposition 2	Job demands (overload) explain a significant proportion of the variance in work engagement.	Inconclusive
Proposition 3	Job demands moderate the relationship between job resources and work engagement	Inconclusive
Proposition 4	Job resources (including growth opportunities, organisational support, role clarity, social support, financial rewards and advancement) explain a significant proportion of the variance in turnover intentions.	Partially accepted
Proposition 5	Job demands (overload) explain a significant proportion of the variance in work engagement.	Inconclusive
Proposition 6	Work engagement has a statistically significant negative relationship with turnover intentions.	Accepted
Proposition 7	Work engagement mediates the relationship between job resources and turnover intentions.	Partially accepted

Chapter 5 is dedicated to interpreting the significant results obtained during the study, including the inferred reasons for the non-significant research results. The next chapter will outline the limitations of this study, as well as provide recommendations for future research endeavours. Furthermore, the managerial implications of the research findings and recommend practical interventions will be discussed.

5 Chapter 5: Conclusion and recommendations

5.1 Introduction

In the preceding chapters, a synopsis of the research problem and objectives of the present study was given. This was followed by a review of the literature related to the theoretical constructs of work engagement and turnover intentions as variables of interest in this study. The proposed relationships between these variables were explored with the premises of understanding the potential link between and impact of specific job demands and job resources on the level of work engagement and turnover intentions of employees in the IT division of a South African bank. Chapter 3 provided an explanation of the research design and methodology utilised to test the research propositions formulated based on the literature review on the topics of interest. In Chapter 4, the results of the statistical analyses were presented with the intention of providing answers to the posed research questions of the present study, and reach conclusions regarding the viability of each of the research propositions.

The following chapter will include a discussion of the results obtained within the study as this relates to the relevant and existing literature presented in earlier chapters. Furthermore, this chapter will outline the managerial implications of the research findings and provide recommendations for practical interventions. Chapter 5 will be concluded with a discussion on the potential limitations of the current study and recommendations for future research.

5.2 Summary of the findings

The central aim of this study was to gain a deeper understanding of the impact of job resources and job demands on work engagement and employee turnover intentions within the IT division of a South African bank. The unique relationship between specific job demands and job resources on the levels of work engagement and employee turnover intentions within this niche population was investigated through analysis of the research data. The summary of the findings provided in the following section could serve as suggested guidelines to organisations within the financial services and banking industries during the development of a retention strategy to increase employee work engagement and intention to stay.

5.2.1 Interpreting the appropriateness of the selected measurement model

For each of the measuring instruments applied to evaluate the different constructs in the study, confirmatory and exploratory factor analysis were completed to establish whether the structure of the constructs had sound factorial validity and reliability when applied to the specific research population.

5.2.1.1 Job Demands-Resources Scale (JDRS) and its dimensions

The Job Demands-Resources Scale (JDRS) (see Annexure D) was originally conceptualised as a five-dimensional construct by Jackson and Rothmann (2005). The JDRS did, however, not conform to its originally conceptualised factor structure in the present study. Four rounds of confirmatory and exploratory factor analysis presented sufficient statistical support for a six-factor model with all six dimensions belonging to the job resources category after all problematic items were removed. The six-factor model presented acceptable fit statistics when tested with CFA.

Within the original JDRS, the job resources scale consists of 38 questions included in four dimensions providing a measurement of growth opportunities (eight items), organisation support (21 items), job security (three items) and advancement (six items). Within the new six-factor JDRS model, the remaining 22 items loaded onto six new job resource dimensions, defined as growth opportunities (α = 0.802, three items), organisational support (α = 0.844, eight items), role clarity (α = 0.798, two items), social support (α = 0.781, four items), financial rewards (α = 0.861, three items), and advancement (α = 0.571, two items). When comparing the original and new dimensions of the job resources scale, the data still supports growth opportunities, organisational support and advancement to remain unique dimensions allocated to the job resources scale. The research population, however, associated items within the organisational support dimension of the original job resources scale with two distinct dimensions within the new job resource scale, defined as social support and role clarity. Furthermore, financial rewards were identified as a separate and unique dimension within the new job resources scale, consisting of items from the advancement dimension of the original JDRS.

Support for the relevance of the new dimensions is provided by previous research studies related to the application of the JDRS. According to Bakker and Demerouti (2007), job resources are valued in their own right or can be viewed as a means for achieving or protecting other valued resources. Job resources related to the provision of and access to social support,

feedback on performance and an increase in autonomy levels may, therefore, initiate a motivational process that is associated with greater levels of work engagement and organisational commitment (i.e. Demerouti et al., 2001b; Salanova, Agut & Peiró, 2005). Schaufeli and Bakker (2004) were furthermore of the opinion that job resources can be located at a larger organisational level (i.e. pay, career opportunities, job security), on interpersonal and social relationship levels (i.e. supervisor and co-worker support, team climate), in the organisation of work (i.e. role clarity, participation in decision making, etc.), and at the task level (i.e. skill variety, task identity, task significance, autonomy, performance feedback).

Role clarity is defined as the organisation of work (Bakker & Demerouti, 2007), and refers to the extent to which the employee receives and understands information relevant to effectively perform his/her job (Kelly & Richard, 1980). As role clarity is perceived to have a positive effect on job satisfaction, organisational commitment and job performance (De Ruyter, Wetzels & Feinberg, 2001), it is considered a key resource associated with continued organisational support. According to Van der Walt (2008), organisational support makes reference to the relationship with management, the provision of role clarity, sharing of and access to information, clear communication and participation in decision-making. Organisational support is also positively related to growth opportunities (including greater task variety, opportunities to learn, and autonomy), advancement and social support.

According to Rothmann and Joubert (2007), job resources also include aspects related to social support (including management and colleague support), and opportunities for job enhancement or growth opportunities in the form of increased control and participation in decision-making (Richardsen & Burke, 1993). According to Bakker et al. (2004), job resources also represent job characteristics associated with autonomy, social support and possibilities for self-growth. Bakker, Demerouti and Euwena (2005a) viewed social support as a forthright resource contributing to employees' achieving their work goals. Support from colleagues is defined in terms of their availability to help, contact possibilities, and whether the employee can count on their colleagues for assistance (Asiwe et al., 2015). Thus, instrumental support provided by colleagues could assist employees in completing work related tasks in time and contribute to alleviating the potential impact of workload (Van der Doef & Maes, 1999). Job resources associated with increased employee growth and learning and development opportunities play an intrinsic motivational role (Bakker et al., 2008). Coetzer and Rothmann (2007a), therefore, strongly recommended that organisations should place emphasis on the creation of growth opportunities for employees by increasing the variety of allocated work tasks, creating learning opportunities and fostering greater levels of autonomy and independence.

Rothmann (2002) made specific reference to recognition, rewards and opportunities for advancement as potential job resources. Asiwe et al. (2015) identified financial rewards as a specific factor that loaded onto the job resources scale. According to Jackson and Rothmann (2005), financial reward refers to the employee's perception of the fairness of their salary in terms of the specific work required, and how comfortably they could live on their pay. Linked with financial rewards, advancement as a job resource is associated with employees' perceptions on being offered an opportunity to progress financially through the organisation's reward and recognition practices (Jackson & Rothmann, 2005). According to Rothmann and Rothmann (2010), advancement entails moving forward within the organisation, and includes remuneration, training and career opportunities. Furthermore, Rothmann et al. (2006) also emphasised that employees associate advancement within their organisation with being offered opportunities to attend relevant personal and professional development interventions (i.e. training courses) as a part of their continuous development.

Within the original JDRS, job demands are reflected by ten items within the overload dimension that included a measurement of physical, cognitive and emotional load related to time pressure (pace of work), attentiveness to many things at the same time (amount of work), and mental and emotional load (dealing with power struggles). Previous studies applying the JDRS nonetheless found the manifestation of singular (overload) as well as multiple job demands dimensions. The manifestation of two distinct job demand dimensions were supported by De Braine and Roodt (2011) that grouped job demands into quantitative job demands (i.e. time pressure, work overload) and qualitative job demands (i.e. emotional demands, role ambiguity, role conflict, and unfavourable physical work environment).

Further examples of job demands were also provided by Bakker (2011), including specific reference to workload, time constraints, mental demands, job insecurity and emotional demands. Demerouti et al. (2001b) defined the chronic job demands of the energetic/health impairment process in the JD-R model as workload, whereas De Beer (2012) referred to workload as an indicator of job demands during a study on the job demands-resources (JD-R) theory, well-being and health within the South African context. Depending on the job context, Van den Broeck et al. (2008) were also of the opinion that job demands can contain a variety of job characteristics, including workload.

The nature of work has also changed from manual demands to more mental and emotional demands (Turner, Barling & Zacharatos, 2002). According to Bakker et al. (2005a), the definition of job demands also encompasses the physical, social and organisational aspects of the job that require both sustained physical and mental effort. These mental demands are more

prevalent in occupations or jobs that require both the processing of information and working with people (Demerouti et al., 2001a, b). As a measure of mental job demands, the complexity of the tasks required within the job should be considered. Dijkhuizen, Van Veldhoven and Schalk (2014) were of the opinion that emotional demands should especially be taken into account when the job requires regular dealings with challenging clients.

Within the new six-factor JD-R model, however, none of the job demand items from the original factor structure loaded onto any of the factors in the new measurement model during the factor analysis process. As a result, the job demands dimension could not be used in further analysis for this specific sample of IT employees within the banking industry. The ensuing data exploration and interpretation was based on the unique job resources as outlined by the new six-factor JD-R model. This loss of the job demands dimension could be attributed to various reasons. It is important to note that the process of factor analysis is not without its challenges. To ensure the latent structure underlying a larger data set is uncovered, factor analysis is applied to reduce the number of variables to a few values that will still contain most of the information found in the original variables (Dornyei, Csizér & Németh, 2006). The procedure results in a small set of underlying dimensions referred to as “factors” or “components”. If the applied questionnaire was based on a valid and straightforward theoretical framework, the resulting factors should correspond to the initial theoretical structure (Domino & Domino, 2006).

It is, however, possible to find a difference between the initial theoretical framework and what is ultimately found in the specific sample applied, according to Dornyei et al. (2006). These discrepancies could include items thought to be related to a particular dimension, did not load on the corresponding scale, or that two dimensions/scales separated on theoretical grounds merged in the research dataset. As in the case of the current research study, previous research applying the JDRS has found evidence for a variety of different dimensions. Jackson and Rothmann (2005) found that the dimensions of the JDRS consisted of seven reliable factors, including organisational support, growth opportunities, overload, job insecurity, relationship with colleagues, control, and rewards. In a study examining the mediating and moderating role of psychological capital in the JD-R model, Brouze (2013) found statistical support for six factors, including role ambiguity, workload, role conflict, autonomy, advancement opportunities and supervisory support. In contrast, Rothmann and Joubert (2007) could only extract five factors (organisational support, workload, resources, advancement opportunities, and job security) during simple component analysis. This variability in the number of dimensions could be an indication of a lack of stability in the factor structure of the original JDRS.

Another challenge associated with factor analysis is that this process does not provide an indication of what the psychological meaning of the factor is (Domino & Domino, 2006). It is, therefore, up to the researcher to review the individual items loading on the factor and name the factor accordingly. Factor analytic dimensions are also considered theoretical dimensions, useful to assist in gaining an understanding of underlying psychological phenomenon, but less expedient as a predictive device for complex real-life behaviour (i.e. work engagement). As a possible explanation, it could be that the current research sample might have interpreted the job demand items as an integral part of their understanding of their work, rather than a separate and unique job demand (i.e. "I work under time pressure"). Similarly, a job demand item (i.e. "I have too much work to do") may be interpreted as a lack of a resource (i.e. a low score on a resource dimension such as role clarity). Job demands will, therefore, not be identified as an independent dimension, but would rather cross-load onto other factors. Due to the loss of the job demands dimension due to cross-loading onto other factors or having a factor loading of less than 0.300, the ensuing data exploration and interpretation was based on the unique job resources as outlined by the new six-factor JD-R model.

5.2.1.2 Utrecht Work Engagement Scale (UWES-17) and its dimensions

The original Utrecht Work Engagement Scale (UWES-17) (see Annexure E) comprises of 17 individual items providing a measurement of three underlying dimensions of work engagement, including vigour (α = 0.859, six items), dedication (α = 0.902, five items) and absorption (α = 0.791, six items) (Schaufeli & Bakker, 2003). Even though the applicability of the UWES-17 to a South African sample has been validated in previous studies (i.e. Schaufeli & Bakker, 2003; Storm & Rothmann, 2003), the results of five rounds of confirmatory and exploratory factor analysis provided sufficient statistical support for a new two-factor solution after seven problematic items were removed. The first factor, vigour (α = 0.741), comprised of five items speaking to the experience of vigour, resilience and being involved in your work. The second factor, dedication (α = 0.902), comprised of five items from the original dedication dimension and speaks to the the level of significance gained from one's work by taking pride in and being enthusiastic about your work. Dedication also speaks to the individual's experience of being inspired and challenged by the expectations set to them for task execution.

During the subsequent comparison of the original and new UWES models, the goodness-of-fit statistics of the original UWES indicated a better model fit with the RMSEA (0.101) in comparison to the same measurement applied to the new proposed UWES model (0.116). As the goodness-of-fit indicates how well a statistical model describe or explain a set of real world

data (Brown, 2015), a worse fit indicates that the new proposed comparison model does not relate to the data as closely to the original model. The *χ2/df* ratio, as well as the SRMR and CFI for the new UWES model, however, presented better fit indices. Although the RMSEA (0.116) of the new measurement model was deemed less than acceptable, the other fit indices indicated that the new is the better measurement model with a simple factor structure in comparison to the original UWES factor structure.

Although the 17-item UWES has been validated and utilised extensively in a various countries (Bakker et al., 2008), research findings relating to the dimensionality of the scale are still inconclusive, according to De Bruin, Hill, Henn and Muller (2013). Although confirmatory factor analysis yielded sufficient support for a three-factor model for the UWES-17 in some previous studies (i.e. Coetzer & Rothmann, 2007b; Storm & Rothmann, 2003), past studies also exist in which the three-factor UWES-model were not endorsed. After conducting principle component and factor analysis, Rothmann, Jorgensen and Marais (2011) found statistical support for the extraction of a single factor. The single factor solution was further supported by Sonnentag (2003) with a 16-item questionnaire and by Wefald and Downey (2009) for a 14-item student version of the UWES.

The question, therefore, still remains whether work engagement should be interpreted as a unidimensional construct, or whether it should be interpreted as three separate (but correlated) dimensions (i.e. vigour, dedication and absorption). Apart from the two options already mentioned, bi-factor analysis conducted by Reise, Morizot and Hays (2007) specified one general dimension and two or more sub-dimensions. Even though there are inconclusive findings in previous research concerning the factor structures, studies have also consistently reported high inter-correlations amongst the three factors (De Bruin et al., 2013). Christian and Slaughter (2007) reported mean correlations of 0.95 between vigour and absorption, 0.90 between dedication and absorption, and 0.88 between vigour and dedication in a meta-analysis of work engagement research. Due to these high inter-correlations, researchers have recommended the use of a total score as indicator of work engagement (i.e. Schaufeli, Bakker & Salanova, 2006).

This research finding of a two-factor structure is, however, aligned with research conducted by Naude and Rothmann (2004) that found support for a two-factor model of work engagement (vigour/dedication and absorption). Their proposed two-factor model was further supported by a lower internal consistency of the absorption scale, leading to questions related to the feasibility of including the absorption scale in the conceptualisation and measurement of work engagement. Recent research suggests that work engagement is primarily characterised by

two core dimensions, related to vigour (high energy levels at work) and dedication (a strong identification with work), according to González-Romá, Schaufeli, Bakker and Lloret (2006). In various South African studies (i.e. Coetzer, 2004; Naude & Rothmann, 2004; Storm & Rothmann, 2003; Van der Linde, 2004) the absorption dimension also indicated problems in terms of low internal consistencies or poor loadings of the items. It is, therefore, possible that absorption plays a less crucial role in defining the concept of work engagement (Brand, 2006). As a result, the inclusion of absorption as measurement of work engagement in South African studies have been questioned (i.e. Coetzer, 2004; Naude & Rothmann, 2004; Van der Linde, 2004) and items related to absorption within the UWES have even been left out (i.e. Brand, 2006) in some instances. For the current study, a decision was, therefore, made to utilise the new two-factor structure of the UWES for all subsequent data analysis and reporting.

5.2.1.3 Turnover Intentions Scale (TIS) and its dimensions

The original Turnover Intentions Scale (TIS) developed by Roodt (2004) (see Annexure F) consists of a single dimension of 15 items providing a measurement of employees' intention to leave on a five-point Likert scale. During the validation of the TIS for the current research sample, two rounds of confirmatory and exploratory factor analysis provided adequate statistical support for a new turnover intention model. After the removal of a single problematic item, the new turnover intention model consisted of two distinct dimensions, including turnover intention behaviours ($\alpha = 0.858$, seven items) and affective turnover intentions ($\alpha = 0.017$, seven items). A comparison of the original and new turnover intentions models indicated an increase in all the goodness-of-fit statistics applied. As both the CFI (0.951) and TLI (0.930) incremental fit indices indicated values greater than 0.9 and the value of the RMSEA being 0.061, statistical support was gained for an acceptable fit of the new proposed two dimension turnover intention model to the current research sample.

Previous research related to turnover intention models provides evidence to support a two-factor model for turnover intentions. The first factor identified, turnover intention behaviours, include items encompassing behavioural indicators related to employees' disengagement from their job and/or organisation, and actions related to the search for alternative job opportunities. Mowday, Steers and Porter (1979) were of the opinion that an employee's intention to leave can influence the turnover decision in two ways. Firstly, the employee's intent may directly lead to actual turnover behaviour (voluntary turnover) even if no other job opportunities are available. Secondly, it may indirectly influence actual turnover behaviour by prompting the employee to

search for new job alternatives, resulting in an increased likelihood of a voluntary termination of the employment relationship.

These withdrawal behaviours can be categorised into behaviours associated with the withdrawal from the current job, and the actions orientated to seek future opportunities, according to Takase (2009, cited in Ncede, 2013). The manifestation of the withdrawing from the job and/or organisation could be behavioural (i.e. increase in daydreaming at work, marked decrease in enthusiasm at work and increased absence from work) and/or verbal (i.e. stated or expressed intentions to leave). Future orientated behaviours include aspects related to the actualisation of the employee's cognitive intentions (Takase, 2009, quoted in Ncede, 2013), which could be operationalised as the actual seeking of an alternative job (i.e. Brough & Frame, 2004; Takase, Maude & Manias, 2005), and the willingness to accept an alternative opportunity when it is available. These behaviours were often used as point of reference to investigate employee turnover intentions, according to Takase (2009, as cited in Ncede, 2013).

The second factor identified in the new turnover intentions model, affective turnover intentions, include items that provide an indication of the regularity with which emotions associated with turnover intentions are experienced, as well as the due consideration of personal responsibilities during the decision making process. According to Mobley (1977), a distinction must be made between the desire to leave and the intent to quit. Fishbein (1967, cited in Arkoubi, Bishop & Scott, 2013) employed the phrase "attitude toward the act" to refer to the desire to leave a job or organisation. This desire is viewed as a reflection of the employee's feelings or emotions (affect) toward the act of quitting. Furthermore, Susskind (2007) viewed turnover intentions as a psychological response to negative aspects associated with the job and/or organisation believed to trigger the employee's emotional and attitudinal withdrawal reactions. These specific emotions and attitudes include frustration and dissatisfaction with the organisation, as well as an affectively neutral form of organisational attachment (McDuff & Mueller, 2000) and the employee's evaluation of future organisational commitment (Sturges & Guest, 2001). The psychological component of turnover intention is, therefore, viewed as the initiating point of a multi-phased turnover reaction process (Takase et al., 2005).

Reliability analysis on the new proposed TIS and its supporting dimensions (turnover intention behaviours and affective turnover intentions) provided an acceptable internal reliability coefficient for the turnover intention behaviours dimension ($\alpha = 0.858$). All seven items in the turnover intention behaviour dimension, therefore, measure the same construct (turnover intention behaviour) and will produce consistent scores over time (Tang, Chui & Babenko, 2014). In contrast, a low internal reliability measurement ($\alpha = 0.017$) was obtained for the

affective turnover intentions dimension. A possible reason for the lower internal reliability coefficient of affective turnover intentions dimension is the inclusion of reverse scored items (TI10, 11 and 14) in the dimension. According to Schmitt and Stults (1985), items that are reversed-scored could reduce the reliability of a scale especially in instances where the testing language could influence the respondent's ability to interpret the negatively worded items (Marsh, 1996). As the research sample consisted of individuals that are predominantly Afrikaans speaking, the possibility exists that the respondents in the present study might have experienced difficulty in interpreting the negatively worded items within the English language questionnaire.

According to Lyons, Howard, O'Mahoney and Lish (1997), low internal consistency could also be attributed to either poor individual items or items that measure different but important constructs. Within this study, the seven items of the affective turnover intentions dimension (TI7 to 12, and 14) individually addresses various emotive, behavioural and cognitive (decision-making) processes associated with turnover intentions. The respondents within this study could, therefore, have viewed and interpreted these processes as different and separate constructs leading to a lower internal consistency for the overall dimension. The internal consistency measure could also have been biased by the number of items in the affective turnover intentions dimension, as shorter scales or dimensions tend to yield lower reliability estimates (Supino & Borer, 2012). As a result, all subsequent analysis and reporting on the turnover intention scale was centred around the internal reliability of the turnover intention behaviours dimension (α = 0. 858, seven items).

5.2.2 Interpreting the descriptive statistics

After the confirmation of the most appropriate measurement scale for the various dimensions, descriptive statistics were employed to provide an account of the basic features of the data after the problematic items were excluded.

5.2.2.1 Interpreting the job demands and resources scores

The new factor structure of the Job Demands-Resources Scale (JDRS) (Rothmann et al., 2006) was used to provide a measure of specific job resources considered of significance to employees within the IT division of a South African retail bank. The new JDRS structure consists of six dimensions (including growth opportunities, organisational support, role clarity,

social support, financial rewards and advancement), all belonging to the job resources category. Responses were rated on a four-point Likert rating scale ranging from 1 (never) to 4 (always). None of the items were reversed scored.

The new job resources scale (22 items) was used to determine the extent to which a sample of employees within the IT division of a South African retail bank felt they are given access to essential job resources. The literature does not provide any specific instructions regarding the interpretation of the scores obtained. Therefore, mean scores (M) of the study were categorised as low (0.00 to 2.00), average (2.00 to 3.00) and high (3.00 to 4.00) in this study. The mean score (M) obtained by the IT employees for the total job resources scale was 2.89 (SD = 0.47). This score can be interpreted as marginally higher than average, indicating that only a slightly above average number of IT employees felt that they have sufficient job resources at their disposal during the performance of their work.

Research has noted that the availability of job resources strongly predict work engagement (Schaufeli & Bakker, 2004) and is considered crucial for ensuring continued employee retention (De Braine & Roodt, 2011). Shuck and Wollard (2010) also reported that employees experiencing high levels of engagement at work are less likely to exhibit intentions to leave the organisation. Furthermore, Elangovan (2001) viewed engagement as a direct antecedent of intention to quit. In terms of the new proposed job resource scale, high mean scores (M) were obtained for the dimensions related to social support (M = 3.28) and role clarity (M = 3.21). The population of IT employees, therefore, tended to report that they regularly have access to social support and are provided with role clarification to facilitate the execution of their jobs.

- Social Support: Morgeson and Humphrey (2006) defined social support as the degree to which the job affords employees with opportunities to elicit advice and assistance from others. According to Bakker et al. (2003b), the lack of social support is considered a factor impacting employee intention to quit and levels of work engagement. The mean score (M) attained for the social support dimension was 3.28 (SD = 0.59). This is indicative of the IT employee's reported perceptions pertaining to social support gravitating towards the higher end of the four-point Likert scale, further reflected by a negative skewness score of -0.536. This dimension also has the highest mean score (M), indicating that the sample of IT employees within the banking industry habitually have opportunity for social interaction and engagement with colleagues and those working closely with them. The access to social support structures (including people and

opportunity) is, therefore, considered a key job resource available to IT employees within this specific retail bank.

- Role clarity: Banton (1965, quoted in Whitaker, Dahling & Levy, 2007) defined a "role" as a set of expectations or norms applied to the employee by others within the organisation. Employees with high role clarity, therefore, possess a clearer understanding of what is required of them during the execution of their job tasks and responsibilities. Within this study, the mean score (M) obtained for the role clarity dimension was 3.21 (SD = 0.65) with a negative skewness score of -0.601. This indicates that the participants tended to select rating options towards the higher values of the four-point Likert scale for this dimension. This high score indicates that IT employees generally have a clear understanding of what is expected of them during the execution of their job. The importance of role clarity in ensuring employee work engagement and intentions to stay was emphasised by Russel (2008). The increase in the provision of role clarity or expectations was found to increase the positive emotions leading to employee engagement. According to Steele and Fullagar (2009), a lack of clearly defined roles will lead to a lack of role engagement, increasing the likelihood of the employees intending to leave that job. The specific organisation within the banking industry should, therefore, make a conscious effort to ensure continued role clarification is provided to sustain the levels of work engagement and intention to stay within the IT employees.

With further analysis of the research data, acceptable mean scores (M) were also obtain for the dimensions related to organisational support (M = 2.91) and growth opportunities (M = 2.87). In comparison with the social support and role clarification dimensions, the IT employees reported that they are less frequently offered organisational support and growth opportunities within their current organisation.

- Organisational support: Organisational support refers to the employee's observations concerning the quality of managerial support afforded to them, including communication and information sharing on the purpose and results of their work (Van der Walt, 2008). Within the current study, the organisational support dimension obtained a mean (M) score of 2.91 (SD = 0.59), which indicates that the IT employees' opinions related to the levels of organisational support provided tended to lean slightly towards the higher end of the four-point Likert scale. This is further supported by the negative skewness score of -0.159 for this dimension. These findings indicate that the IT employees do experience organisational support from their employer, consisting of the provision of especially managerial and colleague support, information sharing, and clear performance contracting

and feedback. As a lack of organisational support could lead to employee disengagement and intention to quit (Firth et al., 2004), organisations within the retail banking industry should continue providing IT employees access to quality organisational support structures during the performance of their work.

- Growth opportunities: According to Rothmann and Joubert (2007), growth opportunities refer to the opportunities extended to an employee in terms of personal growth and development. The mean score (M) obtained for the growth opportunities dimension was 2.87 (SD = 0.69), pointing towards the IT employees' perceptions regarding growth opportunities leaning slightly towards the higher end of the four-point Likert scale (just below 3). The negative skewness score for this dimension (-0.201) is also indicative of the respondents inclination to select rating options towards the higher values of the rating scale (M > 2). The IT employees, therefore, report that they are provided with access to and availability of work variety, opportunities to learn and independence in work practices. Opportunities to enhance and cultivate their competencies by being offered diversity in work tasks and methodology applied, will contribute to ensuring continued work engagement and retention within the IT employees.

The job resource dimensions that were, however, perceived to be below an optimum level and would warrant intervention, included IT employees' perceptions pertaining to the availability of advancement opportunities (M = 2.50) and fair financial reward (M = 2.40) practices within the organisation (job resources based at the organisational level). The IT employees, therefore, reported they tend to have infrequent access to opportunities for advancement and financial rewards during the performance of their work.

- Advancement: Rothmann and Jordaan (2006) defined advancement in terms of the access to financial and development (training) opportunities afforded to an employee. For the current study sample, a mean score (M) of 2.50 (SD = 0.75) was obtained for this job resource dimension. This is indicative of the IT employee's reported perceptions pertaining to opportunities for advancement gravitating towards the lower end of the four-point Likert scale (M < 3), further reflected by a positive skewness score of 0.145. The average IT employee, therefore, tends to perceive that opportunities to progress within the organisation are only offered occasionally, with specific reference to financial advancement (i.e. increase in salary) and access to development opportunities (i.e. attending of training programmes). According to Rothmann and Rothmann (2010), job resources (such as opportunity for advancement) play an extrinsic motivational role as it

may foster a willingness to dedicate one's efforts to ensure agreed goals are attained. This goal attainment will result in work engagement (Bakker et al., 2008) and contribute to improved employee retention (Balakrishnan et al., 2013). It is, therefore, critical to ensure opportunities for advancement are more readily made available to the IT employees to ensure continued work engagement and intentions to stay.

- Financial rewards: Financial rewards is also considered a job resource that is extrinsic to the job (Bakker et al., 2003c), and provides an indication of perceptions surrounding monetary reward or salaries being offered within the organisation. The mean score (M) obtained for the financial rewards dimension was 2.40 (SD = 0.75), which indicates that the IT employees' perceptions about financial rewards tended to slightly lean towards the lower end of the four-point Likert scale. This finding is further supported by the positive skewness score for this dimension (0.050). The average IT employee included in the present study therefore tends to only occasionally perceive the organisation's pay structures and practices as fair. The importance of pay fairness to employees can be observed by its relationship to a number of important work and life outcomes, including employee engagement, turnover intentions, work stress, psychological and physical health, and life satisfaction (Rasch, 2013).

  As employees continually review their salaries to ensure it is still competitive (Döckel, 2003), it is important for organisations to ensure employees perceive a high level of internal equity (when compared with other employees doing the same job and/or within the same team or department) and external equity (when compared with similar jobs in the market) pertaining to issues such as compensation and benefits, promotional opportunities and performance evaluation. As compensation practices have an impact on both employee- and organization-level outcomes, it will be important for this organisation to take the necessary steps to ensure they are promoting perceptions of fair pay and reward practices.

5.2.2.2 Interpreting the work engagement score

A new two-factor structure of the UWES (Schaufeli & Bakker, 2003) was used to determine the level of work engagement of employees working within the IT division of a specific retail bank. The new UWES measurement model consists of two dimensions (vigour and dedication) which functioned as a composite measurement indicator of the employees' work engagement levels. Responses were scored on a seven-point Likert scale (0 = never; 6 = always), with none of the

items being reversed scored. To determine the true meaning of the scores obtained for any version of the UWES, Schaufeli and Bakker (2003) recommended the use of a specific scoring template as outlined in Table 5.1.

Table 5.1: Scoring template for the UWES-17 mean scores

Mean score		Mean
1	Feels engaged once a year or less	0.00 to 0.99
2	Feels engaged at least once a year	1.00 to 1.99
3	Feels engaged at least once a month	2.00 to 2.99
4	Feels engaged at least a couple of times a month	3.00 to 3.99
5	Feels engaged at least once a week	4.00 to 4.99
6	Feels engaged a couple of times per week or daily	5.00 to 6.00

In a study conducted by Schaufeli and Bakker (2003), the levels of employee engagement across a diverse group of professions were compared. According to the mean scores (M) obtained, their results indicated that blue-collar workers (M = 3.63) and physicians (M = 3.10) reported predominantly low levels of employee engagement. In contrast, farmers (M = 4.24) and managers (M = 4.14) obtained mean scores (M) that were significantly higher. Within the current study, the total mean score (M) for the overall work engagement scale was 3.99 (SD = 0.94), which indicates a level 4 work engagement within the IT department of this South African retail bank. This implies that these employees experience feelings of work engagement at least a couple of times a month. After comparing the mean score obtained in the present study (M = 3.99) with the results reported by Schaufeli and Bakker (2003), the conclusion can be drawn that the employees within the IT division of a retail bank in South African experience levels of work engagement comparative to the white-collar workers (M = 3.97) within the high-scoring professional group as defined in the study of Schaufeli and Bakker (2003).

In the present study, the overall measurement of work engagement consisted of two factors, including vigour (energy) and dedication (involvement and willingness to perform). According to Rothmann and Pieterse (2007), vigour and dedication both denote positive work-related feelings, which could lead to more effective on-the-job performance. Schaufeli and Bakker (2004) defined vigour as a positive affective response experienced by individuals during continuous interactions with elements of their job and work environments considered of significance. Furthermore, dedication is defined in terms of the individual's feelings of

enthusiasm, exhibiting pride in their work, and feeling challenged and inspired by their work (Schaufeli & Bakker, 2004). Vigour, therefore, provides a measure of the level of energy experienced by individuals, with the dedication measurement representing the depth of the employee's identification with his/her work (Schaufeli et al., 2002). The following mean scores (M) were obtained for each dimension of the new UWES measurement model:

- Vigour: The mean score (M) obtained for the vigour dimension was 3.69 (SD = 0.90), placing the IT employees' experiences of vigour at a level 4. This reported level of vigour is comparable with the lower scoring occupational groups that include home care staff (M = 3.71), blue-collar workers (M = 3.67) and physicians (M = 3.04), according to Schaufeli and Bakker (2003). This implies that the IT employees, at least a couple of times a month, experience difficulty in disengaging from their work, and are willing to devote time and effort to their work. This lower score also indicated that during these periods, the IT employees' only sporadically feel energised and apply mental resilience as far as their work is concerned regardless of potential failures or being faced by challenging tasks.

- Dedication: The mean score (M) obtained for the dedication dimension was 4.30 (SD = 1.16). This places the IT employee's expressed levels of dedication at a level 5 and top end of the higher scoring occupational groups, including farmers (M = 4.27), managers (M = 4.26) and home care staff (M = 4.25) (Schaufeli & Bakker, 2003). The IT employees, therefore, experience a strong sense of identification with and involvement in their work at least once a week. During these periods, the IT employees tend to be inspired by the significance, meaning and challenge associated with their work. Typically, they will also be enthusiastic about their work, exhibiting a level of pride and dedication to their allocated tasks.

This study, therefore, suggests that the employees within the IT division of this South African bank derive significance and meaning from their work, but might not always exhibit the energy and resilience required to ensure continuous levels of work engagement (Jeve, Oppenheimer & Konje, 2015). High levels of vigour are characteristic of people that thrive at work, and proactively seek opportunities to apply newfound skills and knowledge (Bakker & Leiter, 2010). These individuals continuously develop and improve, and tend to look forward to each new day at work. Research has also proven that thriving contributes to the employee's positive adaptation amidst a changing work environment (Porath, Spreitzer, Gibson & Garnett, 2012). Additionally, thriving has also been positively related to not only in-role and extra-role job performance (Porath et al., 2012), but also innovative behaviours (Carmeli & Spreitzer, 2008)

deemed critical within the competitive banking industry. As engaged workers are characterised by high levels of vigour and dedication, it is recommended that this organisation further explore the specific drivers of vigour required to ensure an increase in the work engagement levels of these scarce and critical resources within this highly specialised industry.

5.2.2.3 Interpreting the turnover intentions score

A new proposed two-factor structure of the TIS (Roodt, 2004) was utilised to provide a measure of the turnover intentions of a sample of IT employees within a South African bank. Item responses were measured on a five-point Likert scale ranging from 1 (never) to 5 (always). Four of the item scores were reversed scored (TI3, 10, 11 and 14). Due to the low Cronbach's alpha for the affective turnover intentions dimension ($\alpha = 0.017$), the internal reliability of the dimension was deemed unacceptable. All further analysis was, therefore, based on the turnover intention behaviours dimension ($\alpha = 0.858$).

As existing literature does not provide any specific instructions regarding the interpretation of the scores obtained by the TIS, the mean scores (M) were categorised as low (0.00 to 1.66), average (1.67 to 3.33) and high (3.34 to 5.00) in this study. When reviewing the mean score (M) data in Table 4.32, the overall mean (M) score for the turnover intentions behaviour dimension was 2.38 (SD = 0.77), indicating that IT employees' experiences of turnover intentions behaviour gravitated slightly towards a lower point on the four-point Likert scale (just below 3). As the respondents of the survey were generally more prone to select the questionnaire options towards the lower end of the TIS ($M < 3$), the data set distribution showed a positive skewness (0.587). This result implies that a reasonable number of the employees within the IT division of the participating retail bank only occasionally contemplate alternative employment opportunities and participate in job search activities.

Due to the potential long term financial returns generated by skilled IT employees (Chambers, 1998; Huselid, 1995), the retention of these scarce and critical resources appear to be of strategic importance for especially organisations relying on information technology infrastructure for their competitive advantage (Döckel et al., 2006). Rogers (2001) was of the opinion that loyal and highly engaged employees tend to generate higher business performance outcomes as reflected by increased sales, improved productivity, greater profitability and enhanced levels of employee retention. It is, therefore, important for organisations to be cognisant of the high technology worker's tendency to identify with a high technology culture distinct from the organisation he or she is employed in (Rogers, 2001).

High technology employees consider it an imperative to work for organisations that offer them the opportunity to work on projects that will enhance their careers, knowledge assets and future earning potential. Organisations, however, tend to expect these resources to apply their knowledge to develop current value-adding products (Von Glinow & Mohrman, 1990). This clash in expectations is considered a common challenge for organisations focused on retaining these highly specialised resources. It is expected that turnover intentions behaviour (i.e. searching the job market for alternative opportunities) might become more prevalent when the employees perceive the organisation as unable or unwilling to address their continued development needs.

To ensure the retention of these specialised resources and potentially limit the occurrence of turnover intentions behaviour (i.e. seeking alternative opportunities in the market), organisations must understand and support the importance of creating a mutually beneficial interdependence with their employees (Sempane, Rieger & Roodt, 2002). A literature review conducted by Döckel (2003) highlighted six critical factors to be taken into consideration for the retention of high technology employees, including salary (compensation), job characteristics (including skills variety and job autonomy), opportunities for training and development, support from management, future career opportunities and work/life policies. These identified factors considered imperative for retention might assist organisations to demonstrate their support for and commitment to their employees, and in turn promote a mutual attachment by employees. The employee's belief that access to and availability of the identified retention factors are motivated by the organisation's desire to retain good employees and exhibit fairness in the treatment of their employees (Tsui, Pearce, Porter & Hite, 1995), could contribute to a greater likelihood of employees remaining with an organisation.

5.2.3 Interpreting the findings regarding the research propositions

In this section, a summary of the key results in the research will be provided, including theoretical support for the findings based on previous research.

Proposition 1	Job resources (including growth opportunities, organisational support, role clarity, social support, financial rewards and advancement) explain a significant proportion of the variance in work engagement.	Partially accepted

The results of the multiple regression analysis indicated that only growth opportunities (β = 0.394, $p < 0.01$), role clarity (β = 0.116, $p < 0.05$), social support (β = 0.253, $p < 0.01$) and financial rewards (β = 0.113, $p < 0.05$) make a significant contribution in explaining the variance in work engagement. The results of this study indicate that these specific job resources play a substantial role in impacting the levels of work engagement of IT employees within the retail banking industry by contributing to explaining 52.7% of the variance observed in work engagement.

According to De Braine and Roodt (2011), various South African based studies on work engagement using the JD-R model as a framework have confirmed that work engagement is predicted by job resources (i.e. Mostert, Cronje & Pienaar, 2006; Rothmann & Jordaan, 2006). The finding that job resources have a strong impact on work engagement provides statistical support for the conservation of resources (COR) theory (Hobfoll, 1989). According to this theory, when organisations fail to provide sufficient job resources (i.e. growth opportunities, role clarity, social support and financial rewards), employees will start exhibiting withdrawal behaviour from work, including a decline in motivation and commitment (Hobfoll, 1989). As employee motivation has a positive relationship with employee commitment and engagement (Shaheen & Faroogi, 2014), the levels of employee motivation and commitment will subsequently impact the levels of engagement exhibited by the employee towards their work.

According to Coetzer (2006), the provision of role clarity and the availability of growth opportunities play a critical role in enhancing work engagement. Various studies have confirmed the significant impact of role clarity on work engagement (i.e. Harter et al., 2002; Russel, 2008; Saks, 2006). Employees experience lower levels of engagement when expectations are not clarified (Harter et al., 2002), as is evident by the expression of negative emotions such as boredom and resentment. Russel (2008) found that the clarification of expectations increased positive emotions that lead to engagement of employees. Aligned with the role clarification, the offering of fair reward, recognition and incentive schemes are also considered key drivers in enhancing employee engagement (Mehta & Mehta, 2013). It is, therefore, important for the IT employee to be fairly rewarded for good performance and to view the reward as fair based on the expertise they offer to the organisation (Robinson et al., 2004).

The employee's level of work engagement is further impacted by the availability of career growth opportunities through clear career paths and development opportunities (Mehta & Mehta, 2013). According to Rothmann and Pieterse (2007), work engagement (including vigour and dedication) is exclusively predicted by the availability of opportunities for job growth and the experience of a strong sense of coherence. Therefore, employees will exhibit higher levels of dedication and vigour at work when perceiving that they have access to opportunities to learn, variety in their work, and a level of independence in the execution of their tasks. Clelland, Duffy, Hoffman, and Taylor (2015) also supported this view by stating that one of the top contributors to job satisfaction and engagement among employees is having the opportunity to use their skills and abilities at work, which are frequently beyond the position for which they have been hired.

Finally, Mehta and Mehta (2013) also highlighted the importance of the social support provided by colleagues and the quality of relationship between team members as a driver of engagement. This relationship is characterised by mutual respect, feelings of being part of an efficient team, and having a good relationship with work colleagues, according to Robinson et al. (2004). Bakker and Demerouti (2007) reported that supportive colleagues and suitable feedback from supervisors contribute to increasing the likelihood of employees being successful at achieving their work goals. Furthermore, social support satisfies the employee's need to belong (Schaufeli & Bakker, 2004). Therefore, social support encourages employee engagement by satisfying basic needs or through the achievement of work related goals, according to Bakker and Bal (2010).

Of the remaining job resource dimensions, the research results indicated that organisational support ($\beta = 0.115$, $p > 0.05$) and advancement ($\beta = -0.018$, $p > 0.05$), however, did not make statistically significant contributions to the variance in work engagement at either the 0.01 or 0.05 levels. Within this study, the organisational support dimension provided an indication of the employees' perceptions pertaining to the quality of the relationship they have with their manager, and whether sufficient information is provided on their job purpose and performance (performance contracting and progress feedback). Based on the reported results, the IT employees do not view the quality of the relationship with their manager and the performance contracting and feedback process as key contributors impacting their levels of work engagement. This is in contrast with the findings of Coetzer (2006) that reported organisational support in the form of supportive superior (manager) relationships plays a critical role in enhancing work engagement. According to Chen and Silverthorne (2005), leadership behaviours have a strong influence on the employee and organisational outcomes, including work engagement.

According to Mardanov, Heischmidt and Henson (2008), employee engagement behaviour depends on the relationship between the employee and the leader, as experienced by the employee. A positive relationship between a leader and employee tend to result during instances where leaders offer clarity in terms of the employee's role (Mukherjee & Malhorta, 2006). In the present sample, it would seem that the process of role clarification ($\beta = 0.116$, $p < 0.05$) in terms of clear contracting and confirming expectations is not driven by the direct manager. In the case of the research organisation, great emphasis is placed on customer service. The IT employees may, therefore, derive the purpose of their job not from their manager, but from other people they engage with during the execution of their work (i.e. internal and/or external clients, colleagues from own and/or other teams, etc.). These parties provide role clarity by contracting clear expectations and ensuring the IT employee knows exactly what he/she is responsible for. A perceived lack of organisational support would, therefore, not have a significant impact on the work engagement of IT employees as long as role expectations are clear.

In the present study, the advancement dimension provided an indication of the employees' perceptions pertaining to the possibility of progressing financially within the organisation and attending training courses. Based on the reported study results and survey items that form the advancement dimension, IT employees within this specific retail bank do not seem to view advancement in terms of an increase in salary and access to formal development programmes as key to their current and future engagement at work. This is in contrast with previous research that reported on the significant impact on employee engagement levels when individuals are offered with sufficient opportunities to develop and gain new skills and knowledge through formal development interventions (i.e. Bakker et al., 2011; Kular et al., 2008). Employees will experience higher levels of work engagement if it is apparent that the organisation is making a conscious effort to provide opportunities for career management and development (Kular et al., 2008). Furthermore, Rothmann and Jordaan (2006) highlighted opportunity for advancement in pay as a strong indicator of work engagement.

When evaluating the reported research findings, the participants attached the greatest value to growth opportunities ($\beta = 0.394$, $p < 0.01$) as a key driver impacting their levels of work engagement. The opportunity for personal growth and development through the application of independent thought and action during the performance of their job is considered of great significance in ensuring continued work engagement in IT employees. This will also address the employee's need to feel they are achieving something of importance at work. These perceived opportunities for growth, rather than the possibility of financial progress and access to continued formal training and development interventions (advancement), seem to be key

antecedents of work engagement within IT employees. The absence of opportunities to progress financially and access to formal development initiatives would, therefore, not have a significant impact on the IT employees' experience of work engagement when the organisation continue offering opportunities for personal growth and independent thought. Proposition 1 was, therefore, partially accepted.

Proposition 2	Job demands (overload) explain a significant proportion of the variance in work engagement.	Inconclusive

The primary purpose of proposition 2 was to determine to what extent job demands could explain a significant proportion of the variance in work engagement. It was, however, not possible, to test this proposition as the newly validated JD-R measurement model did not include any items related to the original job demands dimension. Thus, the finding for proposition 2 was inconclusive.

Previous research has, however, investigated the potential impact of job demands on the levels of work engagement in employees. According to Bakker et al. (2007), the JD-R model theoretically does not assume any direct association between job demands and work engagement. Empirical studies based on the JD-R model have, however, shown that some types of job demands (i.e. workload, time pressure, cognitive demands, etc.) are positively associated with work engagement both concurrently (Lepine et al., 2005) and over time (Mauno et al., 2007). Furthermore, Mauno et al. (2007) and Prieto, Soria, Martinez and Schaufeli (2008) found that different types of job demands (i.e. role ambiguity, role conflict etc.) are negatively associated with the dedication component of work engagement over time.

Meta-analytical studies by Lepine et al. (2005) and Podsakoff et al. (2007) also examined the effect of challenges (i.e. workload, time pressure, etc.) and hindrances (i.e. role ambiguity, role conflict, etc.) as two groups of job demands on performance and job satisfaction. These meta-analytic studies showed a positive effect of challenges and a negative effect of hindrances on performance and job satisfaction. In Japan, an exploratory study reported that higher workload and time pressure (which can be considered as a challenge) were positively associated with greater work engagement (Inoue, Kawakami, Tsuno, Shimazu & Tomioka, 2013). However, the association of hindrances with work engagement has not yet been fully investigated.

Prieto et al. (2008) also found in their study that job demands explained the variance in engagement, with higher job demands leading to lower levels of engagement amongst

employees. Job demands, therefore, impact engagement. In support of this finding, existing literature pertaining to the impact of job demands on work engagement suggests that workload tend to influence the employees' negative affect over time (Totterdell, Wood & Wall, 2006; Zohar, 1999). When resources are lacking, employees find it challenging to cope with both the high quantitative and emotional workloads, as well as the high work pace required (Coetzer, 2006). The subsequent non-achievement of work goals will result in disengaged employees. This finding is further supported by Fourie et al. (2008) that reported a significant negative relationship between job demands and work engagement within various jobs and occupations (Bakker et al., 2004).

Proposition 3	Job demands moderate the relationship between job resources and work engagement.	Inconclusive

With proposition 3, the aim was to determine statistically whether job demands moderate the relationship between job resources and work engagement. As with proposition 2, proposition 3 could not be tested due to the absence of a job demands dimension. The result for proposition 3 was, therefore, also inconclusive.

Existing literature has, however, made reference to the moderating impact of job demands on the relationship between job resources and work engagement. In Bakker and Demerouti's (2008) overall model of work engagement, it is described that job demands moderate the resources-engagement relationship. It is a central assumption within the JD-R model that job resources become more significant and gain motivational potential when employees are confronted with high job demands (i.e. Bakker & Demerouti, 2007). A study by Hakanen et al. (2005) indicated that job resources are more beneficial in maintaining the level of work engagement under conditions of high job demands. Similar findings were also reported by Bakker et al. (2007) in a study among Finnish teachers that found job resources buffer and diminish the negative relationship between between pupil misbehaviour (job demand) and work engagement. Additionally, it was reported that job resources had a particularly significant influence on the work engagement levels of teachers when they were confronted with high levels of misconduct (job demand).

Rothmann and Rothmann (2010), however, proposed a greater necessity for understanding how engagement develops. According to Meyer and Gagné (2008), emphasis should rather be placed on identifying and explaining the underlying mechanisms through which job demands and job resources affect employee engagement. Ryan and Deci (2002) proposed that the self-

determination theory could be applied to gain an understanding of the specific mechanisms of significance that contribute to increasing the levels of work engagement. According to the self-determination theory, the satisfaction of basic human needs for competence, autonomy and relatedness leads to improved performance and physical and psychological well-being. Self-determination theory could, therefore, provide an important framework to facilitate the understanding of the underlying mechanisms driving employee engagement (Ryan & Deci, 2002). Spreitzer (1995) also recommended adding psychological empowerment theory to the mechanisms through which job demands and resources affect employee engagement (Stander and Rothmann, 2010). It is, however, clear that when individuals lack the relevant job resources, they will be unable to reduce the potential negative influence of higher job demands levels (Rothmann & Jordaan, 2006). A perceived lack of required job resources will also impact employees' ability to achieve agreed work goals, and ensure their continued development in their job and organisation. This perceived loss of resources could ultimately lead to employees trying to cope by disengaging from their jobs.

Proposition 4	Job resources (including growth opportunities, organisational support, role clarity, social support, financial rewards and advancement) explain a significant proportion of the variance in turnover intentions.	Partially accepted

The research results specified that growth opportunities ($\beta = -0.240$, $p < 0.01$), financial rewards ($\beta = -0.306$, $p < 0.01$), social support ($\beta = -0.234$, $p < 0.01$), and advancement ($\beta = -0.165$, $p < 0.05$) are significant predictors of turnover intentions at the 0.01 and 0.05 levels respectively. This study shows these specific job resources play an important role in impacting the retention of IT employees within the retail banking industry by explaining 53.3% of the variance observed in turnover intentions.

A study by Pergamit and Veum (1999) found a close and positive correlation between growth opportunities and retention of employees. Prince (2005) contended that talented employees are required to maintain a competitive advantage through career growth and development opportunities, including advancement plans, internal promotion and accurate career previews at the time of hiring. A 2014 Insync survey found that job resources related to job fulfilment and growth opportunities were more strongly related to the retention of employees. Employees are, therefore, more likely to stay with their current employer when they enjoy their work, are satisfied with their jobs, are able to fully utilise their skills and talents, and perceive that the organisation has effective plans for the development and retention of their employees.

Furthermore, Trevor, Gerhart, and Boudreau (1997) ascertained that financial rewards in the form of an increase in pay have a negative impact on turnover intentions. According to Robinson et al. (2004), one of the reasons to stay within an employment relationship is because it makes economic sense. Pay makes continuation of the employment relationship worthwhile due to the mutual dependence it creates. Furthermore, McKnight, Phillips and Hardgrave (2009) emphasised the potential impact of workplace characteristics on worker perceptions of the organisation, including perceptions of reward fairness. By adding benefits to the employment offering, organisations are establishing the foundation for a richer form of engagement by producing a need for the relationship (i.e. creating dependence). This view is supported by Gardner, Van Dyne and Pierce (2004) who viewed pay as both a motivator and employee retention technique. Milkovich and Newman (2004, quoted in Das & Baruah, 2013) clearly stated monetary rewards are considered one of the most important and significant retention factors.

According to Irshad and Afridi (2007), human resource practices related to compensation and rewards, training and development, a supportive culture, and the just and ethical treatment of the employees within an organisation (organisational justice), can contribute to better quality of work and employee retention. Perceptions about opportunities for advancement seem to also impact employees' intention to stay. Hay (2002) revealed that 22% of employees planning to leave an organisation were satisfied with the opportunities for advancement offered by the organisation. This discontent was found to be an important factor impacting employee emotional well-being. Furthermore, Kotze and Roodt (2005) also recounted the results of the P-E Corporate survey in which 800 South African companies participated, reporting the main reason for leaving an organisation was the prospect of better pay and better working conditions. As perceptions of low salary packages could drive employees out of an organisation (Highhouse, Stierwalt, Bachiochi, Elder & Fisher, 1999), organisations should consider offering pay enhancement programmes to assist with the attraction and retention of IT professionals, according to Allen, Armstrong, Reid and Riemenschneider (2008).

Investment in the training and career development for the further advancement of employees is considered a critical factor in ensuring employee retention (Irshad & Afridi, 2007). According to Storey and Sisson (1993, quoted in Irshad & Afridi, 2007), the provision of training opportunities is viewed as a sign of the organisation's commitment to the employees. Leading organisations recognise that the provision of comprehensive training, skills enhancement and career development opportunities is considered a key contributor for both the attraction and retention of flexible, sophisticated and technological employees required by organisations to succeed within a highly computerised economy (Bassi & Van Buren, 1999). Therefore, training and

development opportunities assist in lowering the turnover rate and are considered an important driver of employee retention (Wentland, 2003).

Highhouse et al. (1999) were, however, of the opinion that organisations cannot only consider opportunities for advancement in pay as sufficient to ensure the retention of employees. Ultimately, employees remain with an organisation due to a combination of other factors (i.e. social support by colleagues and management, the work environment, etc.) which compel the employee to stay. According to Dwyer and Ganster (1991), social support within the work context refers to the helpful social interactions (i.e. friendliness and competence) with co-workers employees have access to during task performance (Thirapatsakun, Kuntonbutr & Mechinda, 2014). According to Gaan (2008), the existence of social support (such as co-worker support) within an organisation assists with the retention of talented employees.

The current research results, however, indicated that organisational support ($\beta = -0.056$, $p > 0.05$) and role clarity ($\beta = 0.016$, $p > 0.05$) did not make a significant contribution to explaining the variance in turnover intentions. The respondents' feedback on the organisational support dimension provided insight into the IT employees' relationship with his/her manager and to what extent they are being provided with sufficient information on the purpose and results (or outcome) of their work. The results of the current study reported that organisational support ($\beta = -0.056$, $p > 0.05$) is not considered a statistically significant job resource that could influence the turnover intentions of employees within the IT division of a South African retail bank.

These results contradict the findings of Adams and Bond (2000) that reported organisational support provided by management makes a significant contribution to employee motivation and retention. Leaders within an organisation still play an integral role in creating a healthy environment that encourages the organisation's talent to stay, according to Snyder and Lopez (2002). Organisations that advocate the importance of management support will likely be rewarded with employees that exhibit higher levels of commitment toward organisational success, greater levels of loyalty, and a stronger intention to stay (Merrick, 1998). A key responsibility allocated to line management is also to provide employees with appropriate feedback on their performance to ensure continued performance improvement is possible. Schaufeli and Bakker (2004) also associated the lack of job resources (i.e. performance feedback) with higher levels of disengagement and intentions to quit.

In addition, the IT employees within the current study did not view role clarity ($\beta = 0.016$, $p > 0.05$) as a significant job resource impacting their turnover intentions. Role clarity refers to what extent IT employees know exactly what their core responsibilities and job expectations are.

This result contradicts the findings of previous research conducted by Steele and Fullagar (2009) that found role clarity decreased the probability of employees leaving due to a lack of role engagement. In a longitudinal study of manufacturing workers, Moore, Grunberg and Greenberg (2004) established that greater role clarity was significantly associated with less turnover intention. Moreover, role clarity creates a sense of purpose for employees, leading to the retention of employees by the organisation (Sümer & Van Den Ven, 2008).

The results of this study, therefore, indicate that this specific sample of IT employees will attach significance to the availability of job resources on the interpersonal and social (i.e. support from colleagues, team climate) and organisational (i.e. salary, career and development opportunities) levels when deciding to remain or leave their employer. The availability of specific job resources (including growth opportunities, financial rewards, social support and advancement) will offer a more salient buffer against turnover intentions in IT employees. In contrast, access to job resources at the task (i.e. performance feedback) and work (i.e. role clarity) levels seem to not be considered important drivers of turnover intentions for employees within the IT division of this South African bank. Therefore, neither the availability nor lack of organisational support and clear role expectations will significantly influence the turnover intentions of IT employees. Thus, proposition 4 was partially accepted.

Proposition 5	Job demands (overload) explain a significant proportion of the variance in turnover intentions.	Inconclusive

The primary purpose of proposition 5 was to determine to what extent job demands explain a significant proportion of the variance in turnover intentions. As the job demands dimension was not validated for the new JD-R model, the result for proposition 5 was inconclusive.

Previous research on the potential impact of job demands on the the turnover intentions of employees has, however, noted that certain job demands (specifically emotional demands) are highly prevalent in some specific occupations (including teaching, nursing and the healthcare sectors), whereas they are virtually absent in other occupations (Bakker & Demerouti, 2007). Within the IT industry, research by Hoonakker, Carayon, Schoepke and Marian (2004) showed a positive relationship between IT job demands, emotional exhaustion and turnover intentions. Emotional exhaustion is the depletion of energies and coping resources due to the constant exposure to high job demands, and can culminate in occupational stress, job dissatisfaction and intention to quit (Bakker et al., 2003b). In addition, Kalimo and Toppinen (1995, cited in Ninh, 2014) was of the opinion that technical jobs can lead to emotional exhaustion as the employees

are expected to adopt with the rapid change in technology and have to learn continuously to function effectively in their job (Korunka, Hoonakker & Carayon, 2008).

A study by Ogungbamila, Balogun, Ogungbamila and Oladele (2014) on job stress, emotional labour and emotional intelligence as predictors of turnover intention within service related occupations found that the more workers in service occupations engaged in emotional labour, the higher the probability of their intention to quit the organisation. According to Hochschild (2012), emotional labour is the deliberate and conscious act of displaying, regulating and altering your inner feelings or outward behaviour in order to display the appropriate emotion in compliance with organisational rules or norms. This finding is supported by Chau, Dahling, Levy and Diefendorff (2009) who reported on the significant influence of emotional labour on turnover intentions. According to Ogungbamila et al. (2014), these results may be associated with the fact that the employees operating within a strong service orientated environment (i.e. banking) are usually obliged to express organisationally- and job-related emotions to create an environment that promotes good interpersonal transactions with the internal and/or external clients.

When the amount of emotional input required of the individual run contrary to their own true feelings (i.e. Grandey, 2000; Morris & Feldman, 1996), the employee may experience higher levels of tension and a depletion of energy and coping resources (Weiss & Cropanzano, 1996). This might result in greater turnover intention in an attempt to elevate or escape the emotional incongruence generated by the job and/or environment. According to Cheese, Thomas and Craig (2008), effective coping strategies within the organisation could ensure employees are given the means to handle the job and whether his/her goals are considered achievable. Coping involves various strategies including the provision of skills, knowledge, technology and training as well as a favourable working environment, supportive managers and colleagues, and work practices and processes that reduce the amount of effort required of employees to perform their job (Nienaber & Masibigiri, 2012).

Furthermore, mental demands associated with a job have been included by Holtom, Mitchell, Lee and Eberly (2008, as cited in Nienaber & Masibigiri, 2012) as contributing factors to turnover intentions within employees. A job considered unchallenging will not address the employee's need for continuous development and achievement, ultimately contributing to a higher intention to leave. Within the IT industry, the continuous development and upskilling of employees are considered critical to ensure the resources remain relevant and updated within their specific field of expertise and industry. If a job and/or organisation is not offering the

required mental challenge (i.e. unchallenging work), the probability of the affected resources seeking alternative employment could be increased.

Proposition 6	Work engagement has a statistically significant negative relationship with turnover intentions.	Accepted

The research data suggests a moderate negative correlation (r = -0.615) between the levels of work engagement and turnover intentions, signifying that an increase in one variable will be associated with the decrease in the other variable (and vice versa). As employees operating within the IT division of this specific South African retail bank become more engaged in their work, they will be less prone to seek alternative opportunities outside of their current employer.

This corroborated previous research endeavours that studied this relationship. Schaufeli and Bakker (2004) stated that engaged employees are likely to have a greater attachment to their organisation and a lower tendency to quit. According to Mendes and Stander (2011), engaged employees exhibit an awareness of the organisational context in which they operate, and will work with others to improve their performance within their roles to the benefit of the organisation (Devi, 2009). Highly engaged employees are, therefore less likely to leave an organisation. These findings are further supported by Baskin (2007) who stated that employees experiencing low engagement levels are more likely to leave an organisation. Thus, proposition 6 was accepted.

Proposition 7	Work engagement mediates the relationship between job resources and turnover intentions.	Partially accepted

During the test for mediation, the research results indicated that the variance in turnover intentions of IT employees are significantly impacted by the availability of job resources (β = -0.471) and the level of work engagement (β = -0.289). The results also support a finding of partial mediation as work engagement (mediator) accounted for some, but not all, of the variance between job resources (independent variable) and turnover intentions (dependent variable). This suggests that job resources can have a direct influence on the employees' intentions to leave, with or without the interaction of work engagement.

Although Schaufeli and Bakker (2004) found evidence for work engagement as full mediator of the relationship between job resources and turnover intentions, the current research only found

evidence of work engagement as partial mediator. The availability of suitable job resources can, therefore, influence the turnover intentions of the IT employees directly and indirectly via work engagement as intermediate or mediator variable. Multiple linear regression analysis on the direct relationship of job resources on turnover intension found that the availability of growth opportunities (β = -0.240), social support (β = -0.234), financial rewards (β = -0.306) and advancement opportunities (β = -0.165) as job resources were of significance (see Table 4.34) in determining the level of variance in turnover intentions. The availability and accessibility of these specific job resources will, therefore, have a direct and significant impact on the IT employees' ability to address their psychological needs and ensure the effective management of turnover intentions. Proposition 7 is, therefore, partially accepted as only partial mediation was found.

5.3 Recommendations for implementation

Due to the current highly competitive labour market, extensive evidence is still prevalent on the retention challenges faced by organisations regardless of the organisational size, technological advances and market focus. It is, therefore, imperative that organisations implement active measures to ensure the retention of their critical resources. Retention interventions employed within the business should also take engagement into account, according to Bakker and Demerouti (2008), as engagement contributes to the enhancement of work-life and promotes the well-being of employees. An engaged employee can contribute to higher levels of productivity, improved client satisfaction, and increased organisational profits (Saks, 2006). The main objective of this current study was to gain insight into the specific job resources contributing to work engagement within the IT division of a South African bank, and to share these key learnings to assist with and influence the design of focused strategies to ensure continued retention of the organisation's scarce and critical IT skills and resources.

The results of the present study provided a clear indication of the specific job resources considered as imperative by IT employees to ensure both their continued work engagement and retention within the organisation. One of the managerial implications from the research findings is the need for organisations to provide employees with access to job resources associated with quality and in-depth social support, opportunities for continued growth and professional development, and fair and equitable financial compensation options.

Social support is one of the most well-known situational variables proposed as potential buffer against job and environment related stressors (i.e. Haines, Hurlbert & Zimmer, 1991). Social

support in the form of instrumental support from colleagues can assist the employee in completing work in time and may, therefore, lessen the impact of work load (Bakker et al., 2005a). According to Van den Broeck et al. (2008), social support satisfies the need for employee autonomy and belonging. Previous between-person studies have also consistently shown that job resources (such as support from co-workers and supervisors, performance feedback, autonomy and opportunities for professional development) are positively associated with work engagement. Xanthopoulou, Bakker, Demerouti, and Schaufeli (2009) found that daily work engagement was a function of daily changes in supervisor support, social support from colleagues and team cohesion. Furthermore, Schaufeli and Bakker (2004) found evidence for a positive relationship between three job resources (performance feedback, social support, and supervisory coaching) and work engagement (vigour, dedication, and absorption).

As high technology resources are increasingly challenging to find, Cataldo, Assen and D'Alessandro (2000) strongly advised that organisations should encourage, plan for and invest in the professional career development of high technology employees. This organisational investment in the training of their employees should be seen as essential, and is considered critical for ensuring the continued and future employability of this highly skilled section of the work force, according to Döckel et al. (2006). As high technology resources also want to engage in interesting work that offers challenge and an opportunity to apply their skills (Döckel, 2003), organisations should also consider the specific types of job opportunities available to these resources. Jobs characterised by variety of work, opportunities to solve challenging problems, opportunities to engage with other knowledgeable people within the business, involvement in interesting assignments, and a level of freedom and flexibility in work practices would increase employee retention (Döckel, 2003). Echols (2007) also suggested that organisations should combine learning and development with selective promotion and salary decisions to increase employee retention. These approaches will also lead to increased feelings of competence and meaningfulness associated with work, contributing to continued work engagement and intention to stay.

Although financial reward still remains the primary incentive applied by organisations to attract and retain scarce and critical IT resources (Döckel et al., 2006), the monetary value of the compensation is considered of less importance to high technology employees (Kochanski & Ledford, 2001). Greater significance is rather attached to the perceptions of fairness of the payment practices employed by an organisation. To address high technology employees' concerns related to the way organisations determine pay, organisations should continuously review and benchmark their salaries against similar roles and organisations in the market, and educate employees on the process applied to determine pay levels within the organisation.

Balkin and Gomez-Meija (1984, quoted in Döckel et al., 2006) suggested that organisations should also consider including alternative forms of monetary compensation and recognition as part of their employee reward proposition, including bonuses and profit sharing as a measure of performance feedback.

In addition to the recommendations highlighted above, work engagement can be further enhanced by providing clear role expectations to ensure the continued engagement of IT employees. According to Saks (2006), work engagement is related to the attitudes, intentions and behaviours of employees and can be utilised as a tool to reduce employees' intentions to leave an organisation (Baskin, 2007). Bhatnagar (2007), therefore, viewed engagement as the most effective way in which to retain talent. Role clarity refers to the extent to which employees feel that they have an extensive understanding of their fit and function within the organisation (Foote, Seipel, Johnson & Duffy, 2005). It is considered of importance to ensure that the roles expected of employees are clarified through the provision of the crucial information regarding the expectations placed upon them (Mendes & Stander, 2011). The extent to which the information is successfully received and understood is also considered of importance. Tasks must, therefore, be communicated to employees in such a way that their fit and function within the organisation is clearly and comprehensively understood. According to Mendes and Stander (2011), the role of the leader is considered of key importance to ensure employees are provided with role clarity by providing clear career paths, detailed job models and a well-structured process of consultation when additional clarification of the expectations are required.

As employees are viewed as assets impacting organisational performance and contributing to ensuring competitive advantage, organisations need to take proactive measures in an attempt to retain their employees. Within this study, opportunities for advancement as job resource had a significant impact on the turnover intentions of the IT employees. Advancement is also closely related to both financial rewards and growth opportunities as it refers to the individual's perceptions about pay and opportunities to progress in their jobs (Rothmann & Jordaan, 2006). If the employee perceives advancement opportunities within their current organisation as lacking when compared with other organisations within the same industry, feelings of comparative deprivation may be triggered, according to Alhamwan and Mat (2015), increasing turnover intentions or actual turnover among employees (i.e. Heslin, 2005; Zhao & Zhou, 2008). Due to the scarce nature of the IT skills set, it is of critical importance that advancement opportunities are clear, enlightened and known to every employee (Alhamwan & Mat, 2015).

The leaders and managers within an organisation, however, play a significant role in creating a conducive environment encouraging the talent of an organisation to stay, according to Snyder

and Lopez (2002). Management must provide clear direction to ensure employees work towards the goals of the organisation. Support from management should also include recognition and feedback given to employees on their performance (Kochanski & Ledford, 2001), ultimately leading to greater feelings of importance and level of responsibility towards the organisation due to the employee being offered an opportunity to use their innovation and skill to the advantage of the organisation, according to Eisenberger, Fasolo and Davis-LaMastro (1990). These findings also suggest that management must be well trained to provide the sufficient level of support to their employees.

Furthermore, trust within senior management is supported by the belief that the company will be guided effectively. This trust within senior management is the result of structural fairness and information sharing within an organisation, which has a positive influence on job satisfaction and intention to stay (McKnight et al., 2009). The level of job security is strongly impacted by the level of trust in the organisation's senior management and the information sharing practices within the employing organisation (McKnight et al., 2009). Allen, Shore and Griffeth (1999, cited in Thirapatsakun et al., 2014) defined job security as the guarantee afforded by an organisation in that it wishes to maintain the employee's future membership with the organisation, and provides as strong indication of perceived organisational support. Employees require job security to ensure they can meet their personal responsibilities, and also maintain a certain lifestyle (Pienaar, 2010). Access to permanent positions rather than contract positions can lead to a higher sense of job security.

In conclusion, it is strongly recommended that organisations consider these approaches to assist in ensuring the continued engagement and retention of employees to achieve their personal and organisational goals efficiently and effectively. The pro-active and effective management of work engagement and turnover intentions would require organisations to follow a strategic approach, according to James and Mathew (2012). This would require a continuous diagnosing of the antecedents of work engagement and turnover intentions, supported by the development of a targeted and well-structured retention approach (Allen, Bryant & Vardaman, 2010)

5.4 Limitations of the study and recommendations for future research

It is critical that the researcher evaluate the possible limitations of the study, so as to ensure that the research is examined from all perspectives. This study did encounter some limitations that need to be acknowledged and addressed in subsequent research studies. Although most of

these limitations or shortcomings in the research methodology have already been discussed, it is important to iterate some of the more pressing issues raised for future research. The first potential limitation of this study can be attributed to the selection of quantitative research as the singular research methodology to be applied during this study. Although a quantitative research approach focuses on generating numerical data that can be subjected to objective statistical analysis (Kothari, 2004), the contribution of qualitative data in the form of participant comments could have provided additional information for clarification purposes. It is, therefore, recommended that future studies of this nature should consider a combined quantitative and qualitative approach. As a combined approach generates both statistical and qualitative comments for additional reference, it will allow for a larger volume of information to draw inferences from and identify potential trends that can be generalised to the larger population.

A second potential limitation to this research could be linked to the target population. As only employees from a single retail bank was approached to participate in this research, the question of generalisability of results and identified trends to the IT divisions of other financial institutions (especially banks) could still be questioned. It can, therefore not be assumed that the results are representative of either the broader South African banking industry or the broader South African workforce. Future research on this specific topic should consider including the IT divisions of other financial institutions and banks in an attempt to cross-validate the identified trends within the specific industry.

The third limitation of this study could be attributed to the application of a self-report methodology through the use of a self-administered web-based survey. Self-report data is frequently prejudiced by social desirability as participants may decide to respond to the questionnaire in a manner that could lead to the creation of a more favourable impression of themselves (Podsakoff, MacKenzie, Lee & Podsakoff, 2003). The researcher did, however, consider and employ reasonable actions in an attempt to limit the potential negative impact associated with the third limitation of this study. Firstly, all the data collection was conducted anonymously. Some demographic data was requested to ensure the best possible interpretation of the results could be obtained and assist the participating organisation in focusing their actions on the areas of most need. Secondly, none of the questions in the self-administered web-based questionnaire had a “right” or “wrong’ answer in an attempt to encourage authentic participation. Finally, factor analysis was conducted on all the individual questionnaires applied to ensure the psychometric integrity of the variables assigned to represent the research variables.

A fourth potential limitation is related to the high emphasis placed on confidentiality of the self-administered web-based survey that could have had a potential impact on the legitimacy of the results obtained. Although each individual participant was assured of the confidentiality employed during the data gathering and analysis phases of the research, it is probable that the participants might have had a level of mistrust in the confidentiality clause included in the introduction and informed consent documents. This could have had a negative impact on the level of authenticity of their individual responses to the survey.

The fifth potential limitation is related to the specific theoretical framework selected as basis for the research proposal. For the purposes of this study, the JD-R model (Bakker & Demerouti, 2007; Demerouti et al., 2001b) was applied as theoretical framework for the study of work engagement. The JD-R model assumes every work environment has unique characteristics that can be captured in one overall model. Furthermore, the JD-R is considered a heuristic model (Tims & Bakker, 2010) that stipulates that employee well-being and effectiveness may be produced by two specific sets of working conditions, referred to as job demands and job resources. A potential limitation of the JD-R model is its exclusive focus on the psychosocial work environment by defining job demands and job resources only in terms of the positively and negatively valued work characteristics. It is, therefore, recommended that future research extend the application of the JD-R model to include factors not related to work, including the potential impact of personal resources and employees' application of job crafting behaviour.

Researchers have started to investigate the relationships between certain personal resources (i.e. optimism, hope, resilience and self-efficacy) with work engagement. Tremblay and Messervey (2011) defined personal resources as the aspects of the self that is generally associated with resiliency (i.e. self-efficacy, organisational-based self-esteem, optimism), and refers to people's self-evaluations that enable them to control and influence their environment (Hobfoll, Jonson, Ennis & Jackson, 2003). It was found that optimism and self-efficacy had significant positive relationships with engagement (Herbert, 2011). In the absence of these personal resources, the various job demands could increase the level of negativity and the subsequent development of signs related to depression and job strain (Radey & Figley, 2007).

Job crafting was defined by Tims et al. (2012) as the specific changes in job characteristics employees will make in an attempt to balance their job demands and job resources with their personal needs and abilities. According to the JD–R model, all job characteristics can be categorized into two broad classes, referred to as job demands or job resources. By applying job demands and job resources to understand the potential impact of job crafting, it is likely to capture various aspects (i.e. job characteristics) potentially being altered by employees in their

jobs. Future research should, therefore, take into consideration the potential impact of job crafting as it is applied to shape a job in accordance with the individual's preferences, skills and abilities (Tims & Bakker, 2010).

The sixth limitation potentially impacting this study relates to the lack of job demand items from the original JDRS loading onto any of the factors in the new measurement model. As a result, the job demands dimension could not be considered or included in further data analysis, impacting the researcher's ability to determine the specific and potential impact of job demands on work engagement and turnover intentions within the IT division of a retail bank. According to Rothmann and Pieterse (2007), the overload dimension of the original JDRS provides a measurement of job demands, referring to the pace and amount of work, mental load and emotional load associated with work. Although various South African studies have reported support for the original JD-R model (Bakker & Demerouti, 2007; Demerouti et al., 2001b; Schaufeli & Bakker, 2004), Rothmann et al. (2006) emphasised the importance of more research required to develop a valid measure applicable to a wide variety of contexts. As the JDRS was originally developed to measure the job demands and resources of educators (Jackson & Rothmann, 2005), future research should consider including alternative measures of job demands or adapting the original JDRS for application within this specific and unique section of the banking industry. Interviews with employees within the IT division of a bank will have to be conducted to ensure information is obtained concerning the job characteristics of employees within the organisation. This information can then be used to adapt the items of the original JDRS (Jackson & Rothmann, 2005), and to write additional, context-relevant items to be added to the JDRS. Furthermore, it should be considered whether the measurement model for job demands and job resources should be conceptualised and measured separately, rather than as a single variable.

The seventh potential limitation is related to the challenges related to finding less than desirable goodness-of-fit statistics for both the original Utrecht Work Engagement Scale (UWES-17) and the new proposed model even after all the problematic items were removed. Although the UWES-17 is currently the most commonly used measure for assessing work engagement according to Shuck (2011), other established measures for assessing employee engagement should be examined for future research endeavours. The UWES-17 in its original design is rooted in burnout literature (i.e. Maslac et al., 1996), and conceptualises engagement as the opposite of burnout. Although Schaufeli et al. (2002) have since acknowledged that engagement is not the opposite of burnout, the fundamental scale structure of the UWES remains the same, comprising of three components (vigour, dedication, and absorption) as the opposites of exhaustion, cynicism and inefficacy respectively.

One alternative option for consideration is the Job Engagement Scale (JES) designed by Rich, LePine and Crawford (2010) as an alternative measure of engagement. The JES is based on Kahn's (1990) conceptualization of engagement that proposes individuals express levels of engagement reflected by a cognitive, affective and physical commitment towards their job when they find meaningfulness (the value of a work goal in relation to the ideals of an individual), safety (being able to show and employ one's self without fear of negative consequences to self-image, status or career), and availability (the sense of having the physical, emotional or psychological resources to engage at a particular moment) in their work roles. Based on the perspectives outlined by Kahn (1990) and Schaufeli et al. (2002), the employee engagement construct is defined in terms of three dimensions related to a physical component (being physically involved in a task and showing vigour and a positive affective state), a cognitive component (being alert at work and experiencing absorption and involvement), and an emotional component (being connected to one's job/others while working, and showing dedication and commitment).

Finally, the present study did not account for or include financial performance metrics to provide further impetus to address any remaining ambivalence regarding the importance of ensuring work engagement and retention of key critical IT resources within the retail banking industry. Due to the increasingly competitive nature of this industry, it is recommended that future research should also consider including the link between work engagement, employee retention and organisational financial performance results into their research endeavours.

5.5 Conclusion

By exploring the specific factors that contribute to the occurrence of work engagement and turnover intentions amongst employees within the IT division of a South African bank, this study made a positive contribution to the theoretical framework of work engagement and turnover intention. Panoch (2001) promoted the view that modern organisations should take greater care in retaining valuable employees due to the challenge associated with finding good talent in the market. Organisational benefits resulting from higher levels of employee work engagement have included the greater achievement of individual goals (i.e. productivity) (Schaufeli & Bakker, 2004), increased customer satisfaction levels (Harter et al., 2002) and organisational profitability (Harter et al., 2002). These organisational benefits can only transpire through the efforts of the individual employees, which make employee retention a critical issue, according to Jones and Harter (2005). This view was supported by Walker (2001, cited in Das & Baruah, 2013) that

considered the management and retention of promising employees through engagement as an imperative for organisations to achieve competitive advantage.

This study assisted with the identification of the specific job resources that make a unique contribution to determining the work engagement and potential for turnover within a highly specialised section of the South African banking industry. Although the findings of the current study are based on data gathered within a single organisation, the results obtained do provide encouraging deductions on the specific job resources impacting work engagement and intention to stay of IT employees within the South African banking industry. By applying the JD-R model as theoretical framework for the study, the unique job resources as drivers of work engagement and turnover intentions of IT employees could be highlighted to direct the development of focused work engagement and retention strategies. It is hoped that this research will add value to organisational knowledge on how to improve work engagement and intention to stay of scarce and critical IT skills within this highly competitive industry.

References

Adams, A., & Bond, S. (2000). Hospital nurses job satisfaction, individual and organizational characteristics. *Journal of Nursing Administration, 32*(3), 536-543.

ADP Research Institute. *Employee Satisfaction vs Employee engagement. Are they the same thing? An ADP White Paper*. Retrieved February 25, 2014, from http://www.adp.com/~/media/RI/whitepapers/Employee%20Engagement%20vs%20Employee%20Satisfaction%20White%20Paper.ashx.

Ahuja, M.K. (2002). Women in the information technology profession: A literature review, synthesis and research agenda. *European Journal of Information Systems, 11,* 20–34.

Aktouf, O. (1992). Management and theories of organizations in the 1990s: toward a critical radical humanism. *Academy of Management Review*, *17*, 407–431.

Alhamwan, M., & Mat, N. (2015). Antecedents of Turnover Intention Behavior among Nurses: A Theoretical Review. *Journal of Management and Sustainability*, *5*(1), 84-89.

Allen, D.G., Bryant, P.C., & Vardaman, J.M. (2010). Retaining talent: Replacing misconceptions with evidence-based strategies. *The Academy of Management Perspectives*, *24*(2), 48-64.

Allen, M.W., Armstrong, D., Reid, M.F. & Riemenschneider, C.K. (2008). Factors impacting the perceived organisational support of IT employees. *Information & Management,* 45, 556–563. dx.doi.org/10.1016/j.im.2008.09.003.

Ang, S, & Slaughter, S.A. (2001). Work outcomes and job design for contract versus permanent information systems professional on software development teams. *MIS Quarterly, 25*(3), 321–350.

Arkoubi, K.A., Bishop, J.W., & Scott, D. (2013). An Investigation of the Determinants of Turnover Intention among Truck Drivers in the USA. *Advances in Management, 6*(3), 470-480.

Ashford, S.J., Lee, C., & Bobko, P. (1989). Content, causes and consequences of job insecurity: A theory based measure and substantive test. *Academy of Management Journal, 21*, 803-829.

Asiwe, D.N., Hill, C., & Jorgensen, L.I. (2015). Job demands and resources of workers in a South African agricultural organisation. *SA Journal of Human Resource Management, 13*(1), 1-16. .doi.org/10.4102/ sajhrm.v13i1.634.

Awan, K.Z., & Akram, M. (2012). The relationship between Islamic work ethics and innovation capability and knowledge sharing plays moderation role. *International Journal of Economics and Management Sciences, 1*(8), 34-48.

Babin, B.J., & Boles, J.S. (1996). The effects of perceived co-worker involvement and supervisor support on service provider role stress, performance and job satisfaction. *Journal of Retailing, 72*(1), 57-75.

Bakker, A.B. (2011). An evidence-based model of work engagement. *Current directions in Psychological Science, 20*(4), 265-269.

Bakker, A.B., Albrecht, S.L., & Leiter, M.P. (2011). Work engagement: Further reflections on the state of play. *European Journal of Work and Organizational Psychology, 20*, 74–88.

Bakker, A.B., & Bal, M.P. (2010). Weekly work engagement and performance: A study among starting teachers. *Journal of Occupational and Organizational Psychology*, *83*(1), 189-206.

Bakker, A.B., & Demerouti, E. (2007). The Job Demands-Resources model: State of the art. *Journal of Management Psychology, 22*(3)*,* 309-328.

Bakker, A.B., & Demerouti, E. (2008). Towards a model of work engagement. *Career Development International, 13*(3), 209-223.

Bakker, A.B., Demerouti, E., De Boer, E., & Schaufeli, W. (2003a). Job demands and job resources as predictors of absence duration and frequency. *Journal of Vocational Behavior, 62*, 341-356.

Bakker, A.B., Demerouti, E., & Euwena, M.C. (2005a). Job resources buffer the impact of job demands on burnout. *Journal of Occupational Health Psychology, 109*(2), 170-180.

Bakker, A.B., Demerouti, E., & Schaufeli, W.B. (2003b). Dual processes at work in a call center: An application of the job demands-resources model. *European Journal of Work and Organisational Psychology, 12*, 393-417.

Bakker, A.B., Demerouti, E., & Schaufeli, W. (2005b). The crossover of burnout and work engagement among working couples. *Human Relations, 58*, 661-689.

Bakker, A.B., Demerouti, E., Taris, T., Schaufeli, W., & Schreurs, P. (2003c). A multi-group analysis of the Job Demands-Resources model in four home care organizations. *International Journal of Stress Management, 10*, 16-38.

Bakker, A.B., Demerouti, E., & Verbeke, W. (2004). Using the Job Demands-Resources model to predict burnout and performance. *Human Resource Management, 43*(1), 83−104. doi:10.1002/hrm.2004.

Bakker, A.B, Hakanen, J.J., Demerouti, E., & Xanthopoulou, D. (2007). Job resources boost work engagement, particularly when job demands are high. *Journal of Educational Psychology, 99*(20), 274-284.

Bakker, A.B., & Leiter, M.P. (2010). *Work engagement: A handbook of essential theory and research.* New York: Psychology Press.

Bakker, A.B., Schaufeli, W.B., Leiter, M.P., & Taris, T.W. (2008). Work engagement: An emerging concept in occupational health psychology. *Work & Stress, 22*, 187-200.

Balakrishnan, C., Masthan, D., & Chandre, V. (2013). Employee retention through employee engagement: A study at an Indian international airport. *International Journal of Business and Management Invention, 2*(8), 9–16.

Balducci, C., Fraccaroli, F., & Schaufeli, W.B. (2011). Workplace bullying and its relation to work characteristics, personality and post-traumatic stress symptoms: An integrated model. *Anxiety, Stress & Coping, 24*(5), 499-513.

Barkhuizen, N., & Rothmann, S. (2006). Work enjoyment of academic staff in South African higher educational institutions. *Management Dynamics, 15*(1), 38-46.

Barling, J., & Kelloway, K.E. (1996). Job insecurity and health: The moderating role of workplace control. *Stress Medicine*, *12*, 253-259.

Baron, R., & Kenny, D. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173-1182.

Baskin, B. (2007). *Vigor, dedication, and absorption: Work engagement among secondary English teachers in Indonesia.* Paper presented at the annual AARE Conference, Fremantle, Perth.

Bassi, L.J., & Van Buren, M.E. (1999). Sharpening the leading edge. *Training and Development. 53*(1), 23-32.

Beehr, T.A., Glaser, K.M., Canali, K.G., & Wallwey, D.A. (2001). Back to basics: Re-examination of Demand-Control Theory of occupational stress. *Work & Stress*, *15,* 115–130.

Berg, J.M., Dutton, J.E., & Wrzesniewski, A. (2008). *What is job crafting and why does it matter?* Ann Arbor, MI: University of Michigan Ross School of Business. Retrieved July 11, 2015, from http://www.bus.umich.edu/Positive/POS-Teaching-and-Learning/ListPOS-Cases.htm.

Berg, J.M., Grant, A.M., & Johnson, V. (2010a). When callings are calling: Crafting work and leisure in pursuit of unanswered occupational callings. *Organization Science, 21*, 973–994.

Berg, J.M., Wrzesniewski, A., & Dutton, J.E. (2010b). Perceiving and responding to challenges in job crafting at different ranks: When proactivity requires adaptivity. *Journal of Organizational Behavior, 31*, 158–186.

Bester, F. (2012). *A model of work identity in multicultural work settings.* Unpublished doctoral thesis, University of Johannesburg, Johannesburg, South Africa.

Bhatnagar, J. (2007). Talent management strategy of employee engagement in Indian ITES employees: key to retention. *Employee Relations, 29*, 640−663. doi:10.1108/01425450710826122.

Blankertz, L.E., & Robinson, S.E. (1996). Who is psychosocial rehabilitation worker? *Psychiatric Rehabilitation Journal 19*(4), 3-13.

Blau, G., & Boal, K.B. (1987). Conceptualizing how job involvement and organizational commitment affect turnover and absenteeism. *Academy of Management Review, 12,* 288–300.

Blizzard, D.B.A. (2002). Nurses may be satisfied, but are they engaged? Retrieved April 7, 2015, from http://www.gallup.com/poll/6004/nurses-may-satisfied-they-engaged.aspx.

Borg, I., & Elizur, D. (1992). Job insecurity: Correlates, moderators and measurement. *International Journal of Manpower*, *13*, 13-26. doi:10.1108/01437729210010210.

Bosman, J., Rothmann, S., & Buitenbach, J.H. (2004). Job insecurity, burnout and work engagement: The impact of positive and negative affectivity. *SA Journal of Industrial Psychology, 31*(4), 48-56.

Bothma, F.C. (2011). *The consequences of employees' work-based identity*. Unpublished doctoral thesis, University of Johannesburg, Johannesburg, South Africa.

Bothma, C.F.C., & Roodt, G. (2013). The validation of the turnover intention scale. *SA Journal of Human Resource Management, 11*(1), 507-519.

Brand, L. (2006). *Burnout, work engagement and workaholism among employees in the insurance industry.* Unpublished doctoral thesis, North-West University, Potchefstroom, South Africa.

Britt, T.W., Adler, A.B., & Bartone, P.T. (2001). Deriving benefits from stressful events: the role of engagement in meaningful work and hardiness. *Journal of Occupational Health and Psychology, 6*, 53-63.

Brockner, J., Tyler, T.T., & Cooper-Scheinder, R. (1992). The influence of prior commitment to an institution on reactions to perceived unfairness: The higher they are, the harder they fall. *Administrative Science Quarterly, 37*, 241-261.

Brough, P., & Frame, R. (2004). Predicting police job satisfaction and turnover intentions: The role of social support and police organisational variables. *New Zealand Journal of Psychology*, *33*(1), 8-16.

Brouze, K.L. (2014). *Examining the mediating and moderating role of psychological capital in the job demands-resources model*. Unpublished master's thesis, University of Cape Town, Cape Town, South Africa.

Brown, T.A. (2015). *Confirmatory factor analysis for applied research* (2nd ed.). New York: Guilford Press.

Carmeli, A., & Spreitzer, G.M. (2009). Trust, connectivity, and thriving: Implications for innovative behaviors at work. *The Journal of Creative Behavior*, *43*(3), 169-191.

Cataldo, P., van Assen, J. & D'Alessandro, A. (2000). How to win the telecom talent war: Companies can retain a best-in-class workforce in a highly competitive labour market using a knowledge-based approach that emphasises continuous learning. *America's Network, 104*(11), 55.

Clelland, C, Duffy, A, Hoffman, S., & Taylor, J. (2015). Employee engagement: What, why and how. Retrieved August 31, 2015, from http:// www.srcus.org management/whitepapers/ Employee%20Engagement%20SRCUS%20White%20Paper%20-%20Final.pdf.

Chambers, E.G. (1998). Win the war for top talent. *Workforce, 77*(12), 50–56.

Chang, M.A., Wang, Y.S., & Huang, T.C. (2013). Work design-related antecedents of turnover intentions: A multi-level approach. *Human Resource Management, 52*(1), 1-26.

Charted Institute of Personnel and Development (2006). Reflections of employee engagement: Change agenda. CIPD: London. Retrieved February 25, 2014, from http://www.cipd.co.uk/NR/rdonlyres/E8C71850-FB75-4CAB-901B-00D2363F311E/0/reflempengca.pdf.

Chau, S.L., Dahling, J.J., Levy, P.E., & Diefendorff, M. (2009). A predictive study of emotional labor and turnover. *Journal of Organizational Behaviour, 30,* 1151-1163.

Cheese, P., Thomas R.J., & Craig, E. (2008). *The talent powered organisation: Strategies for globalisation, talent management and high performance.* London: Kogan Press Limited.

Chen, J.C., & Silverthorne, C. (2005). Leadership effectiveness, leadership style and employee readiness. *Leadership and Organisation Development Journal, 26*, 280−288. doi:10.1108/01437730510600652.

Christian, M.S., & Slaughter, J.E. (2007). Work engagement: A meta-analytic review and directions for research in an emerging area. *Academy of Management Proceedings, 1*, 1–6. dx.doi.org/10.5465/AMBPP.2007.26536346.

Coetzer, M.F. (2006). Job demands, job resources and work engagement of employees in a manufacturing organisation. Unpublished master's thesis, North-West University, Potchefstroom., South Africa.

Coetzer, W.J. (2004). Burnout and Work Engagement of employees in an insurance company. Unpublished doctoral thesis, North-West University, Potchefstroom, South Africa.

Coetzer, C.F., & Rothmann, S. (2007a). Job demands, job resources and work engagement of employees in a manufacturing organisation. *Southern African Business Review, 11*(1), 17–32.

Coetzer, W.J., & Rothmann, S. (2007b). A psychometric evaluation of measures of affective well-being in an insurance company. *South African Journal of Industrial Psychology, 33*(2), 7–15.

Crim, D., & Seijts, G. (2006). What engages employees the most or, the ten C's of employee engagement. *Ivey Business Journal*, *70*(4), 1-5.

Cropanzano, R., & Wright, T.A. (2001). When a 'happy' worker is really a 'productive' worker: a review and further refinement of the happy-productive worker thesis. *Consulting Psychology Journal: Practice and Research, 53*, 182-99.

Das, B.L., & Baruah, M. (2013). Employee retention: A review of literature. *Journal of Business and Management, 14*(2), 8-16.

De Beer, L.T. (2012). *Job demands-resources theory, health and well-being in South Africa*. Unpublished doctoral thesis, North-West University, Potchefstroom, South Africa.

De Beer, L.T. (2014). The effect of presenteeism-related health conditions on employee work engagement levels: A comparison between groups. *SA Journal of Human Resource Management, 12*(1), 1-8. doi.org/10.4102/ sajhrm.v12i1.640.

De Braine, R., & Roodt, G. (2011). The Job Demands-Resources model as predictor of work identity and work engagement: A comparative analysis. *SA Journal of Industrial Psychology, 37*(2), 1-11.

De Bruin, G.P., Hill, C., Henn, C.M., & Muller, K.P. (2013). Dimensionality of the UWES-17: An item response modelling analysis. *SA Journal of Industrial Psychology, 39*(2), 1-8.

Deci, E.L., & Ryan, R.M. (1987). The support of autonomy and the control of behaviour. *Journal of Personality and Social Psychology, 53*, 1024-1037.

De Lange, A.H., De Witte, H., & Notelaers, G. (2008). Should I stay or should I go? Examining longitudinal relations amongst job resources and work engagement of stayers versus movers. *Work & Stress, 22*(3), 201-223.

Demerouti, E., Bakker, A.B., De Jonge, J., Janssen, P.P.M., & Schaufeli, W.B. (2001a). Burnout and engagement at work as a function of demands and control. *Scandinavian Journal of Work Environment and Health, 27*, 279-286.

Demerouti, E., Bakker, A.B., Nachreiner, F., & Schaufeli, W.B. (2001b). The job demands-resources model of burnout. *Journal of Applied Psychology, 86*, 499-512.

Dernovsek, D. (2008). Creating highly engaged and committed employee starts at the top and ends at the bottom line, Credit Union Magazine, May 2008. Credit Union National Association, Inc.

De Ruyter, K.O., Wetzels, M., & Feinberg, R. (2001). Role stress in call centers: its effects on employee performance and satisfaction. *Journal of interactive marketing*, *15*(2), 23-35.

Devi, V.R. (2009). Employee engagement is a two way street. *Human Resource Management International Digest, 17*, 3−4. doi:10.1108/09670730910940186.

De Witte, H. (1999). Job insecurity and psychological well-being: Review of the literature and exploration of some unresolved issues. *European Journal of Work and Organizational Psychology*, *8*, 155-177.

Diamantopoulos, A., & Siguaw, J.A. (2000). *Introducing LISREL*. London: SAGE Publications.

Dijkhuizen, J., Van Veldhoven, M., & Schalk, R. (2014). Development and validation of the entrepreneurial job demands scale. *International Journal of Knowledge, Innovation and Entrepreneurship, 2*(1), 70-89.

Döckel, A. (2003). *The effect of retention factors on organisational commitment: An investigation of high technology employees*. Unpublished master's thesis, University of Pretoria, Pretoria, South Africa.

Döckel, A., Basson, J.S., & Coetzee, M. (2006). The effect of retention factors on organisational commitment: An investigation of high technology employees. *South African Journal of Human Resource Management*, *4*(2), 20–28.

Domino, G., & Domino, M.L. (2006). *Psychological testing: An introduction*. New York: Cambridge University Press.

Dornyei, Z., & Csizér, K., & Németh, N. (2006). *Motivation, language attitudes and globalisation: A Hungarian perspective*. Cleveland: Multilingual Matters.

Du Plessis, M. (2014). *The relationship between authentic leadership, psychological capital, followership and work engagement.* Unpublished doctoral thesis, University of the Western Cape, South Africa.

Du Plooy, J., & Roodt, G. (2010). Work engagement, burnout and related constructs as predictors of turnover intention. *South African Journal of Industrial Psychology, 36*(1), 1-13.

Du Plooy, J., & Roodt, G. (2013). Biographical and demographical variables as moderators in the predictors of turnover intentions. *SA Journal of Industrial Psychology, 39*(1), 1-12.

Durkin, M., & Bennett, H. (1999). Employee commitment in retail banking. *International Journal of Bank Marketing, 17*(3), 124-134.

Dwyer, D.J., & Ganster, D.C. (1991). The effects of job demands and control on employee attendance and satisfaction. *Journal of Organizational Behavior*, *12*(7), 595-608.

Echols, M.E. (2007). Learning's role in talent management. *Chief Learning Officer*, *6*(10), 36–40.

Eisenberger, R., Fasolo, P., & Davis-LaMastro, V. (1990). Perceived organisational support and employee diligence, commitment, and innovation. *Journal of Applied Psychology, 75*, 51–59.

Elangovan, A.R. (2001). Causal ordering of stress, satisfaction and commitment, and intention to quit: a structural equations analysis. *Leadership & Organization Development Journal*, *22*(4), 159-165.

Facteau, J.D., Dobbins, G.H., Russell, J.E.A., & Ladd, R.T. (1995). The influence of general perceptions of the training environment on pretraining motivation and perceived training transfer. *Journal of Management, 21*(1), 1–25.

Firth, L., Mellor, D.J., Moore, K.A., & Loquet, C. (2004). How can managers reduce employee intention to quit? *Journal of Managerial Psychology, 19*(2), 170-187.

Foote, D.A., Seipel, S.J., Johnson, N.B., & Duffy, M.K. (2005). Employee commitment and organizational policies. *Management Decision, 43,* 203-219.

Fourie, L., Rothmann, S., & Van de Vijver, F.J.R. (2008). A model of work wellness for non-professional counsellors in South Africa. *Stress and Health, 24*, 35-47.

Frank, F.D., Finnegan, R.P., & Taylor, C.R. (2004). The race for talent: Retaining and engaging workers in the 21st century. *Human Resource Planning, 27*(3), 12−24.

Fredrickson, B.L., & Losada, M.F. (2005). Positive affect and the complex dynamics of human flourishing. *American Psychologist, 60*, 678-86.

Gaan, N. (2008). Stress, social support, job attitudes and job outcome across gender. *The Icfai University Journal of Organizational Behavior*, *52*, 34-44.

Gable, B. (1999). Building and retaining staff – it's a whole new world. *Business Communication Review, 29*(7), 60-63.

Gable, S.L., & Haidt, J. (2005). What (and why) is positive psychology? *Review of General Psychology, 9*(2), 103-110.

Gallup (2011). *Driving Engagement everyday: 2011 Engagement Survey*. Retrieved February 6, 2014, from http://home.ncifcrf.gov/SAICFTraining/gallupresources/SAIC-Best-Practicies-Q12.pptx.

Gardner, D.G., Van Dyne, L., & Pierce, J.L. (2004). The effects of pay level on organization-based self-esteem and performance: a field study**.** *Journal of Occupational and Organizational Psychology, 77*(3), 307-322.

Gbadamosi, G. (2003). HRM and the commitment rhetoric: Challenges for Africa. *Management Decision, 41*(3), 274-280.

González-Romá, V., Schaufeli, W.B., Bakker, A.B., & Lloret, S. (2006). Burnout and work engagement: Independent factors or opposite poles?. *Journal of Vocational Behavior*, *68*(1), 165-174.

Grandey, A. (2000). Emotion regulation in the workplace: A new way to conceptualize emotional labor. *Journal of Occupational Health psychology, 5*(1), 95-110.

Gravetter, F.J., & Forzano, L.B. (2011). *Research Methods for the Behavioral Sciences* (4th ed.). USA: Wadsworth.

Graziano, A.M., & Raulin, M.L. (2000). *Research Methodology. A process of inquiry* (4th ed.). USA: Allyn and Bacon.

Greenhaus, J.H., & Beutell, N.J. (1985). Sources of conflict between work and family roles. *Academy of Management Review, 10*(1), 76–88.

Griffeth, R., Hom, P., & Gaertner, S. (2000). A meta-analysis of antecedents and correlates of employee turnover: Update, moderator tests, and research implications for the next millennium. *Journal of Management, 26,* 463–488.

Grover, S.L., & Crooker, K.J. (1995). Who appreciates family-responsive human resources policies: the impact of family-friendly policies on the organisational attachment of parents and non-parents. *Personnel Psychology, 48*(2), 271-289.

Haid, M., & Sims, J. (2009). *Employee engagement: Maximizing organizational performance*. Retrieved February 6, 2014, from http://www.right.com/thought-leadership/research/employee-engagement---maximizing-organizational-performance.pdf.

Haines, V. A., Hurlbert, J. S., & Zimmer, C. (1991). Occupational stress, social support, and the buffer hypothesis. *Work and Occupations, 18,* 212–235.

Hakanen, J.J., Bakker, A.B., & Demerouti, E. (2005). How dentists cope with their job demands and stay engaged: The moderating role of job resources. *European Journal of Oral Sciences, 113*, 479-487.

Hakanen, J.J., Schaufeli, W.B., & Ahola, K. (2008). The job demands-resources model: A three-year cross-lagged study of burnout, depression, commitment, and work engagement. *Work & Stress, 22*, 224-241.

Halawi, A.L., Aronson, E.L., & McCarthy, V.R. (2005). Resource-based view of knowledge management for competitive advantage. *The Electronic Journal of Knowledge Management, 3*(2), 75-86.

Halbesleben, J.R.B., & Wheeler, A.R. (2008). The relative roles of engagement and embeddedness in predicting job performance and intentions to leave. *Work & Stress, 22*(3), 242−256. doi.org/10.1080/02678370802383962.

Harris, C. (2012). *Relationships between psychological capital, work engagement and organisational citizenship behaviour in South African automotive dealerships.* Unpublished doctoral thesis, Nelson Mandela Metropolitan University, Port Elizabeth, South Africa.

Harter, J.K., Schmidt, F.L., & Hayes, T.L. (2002). Business-unit level relationship between employee satisfaction, employee engagement and business outcomes: A meta-analysis. *Journal of Applied Psychology*, *87*, 268–279.

Hay, M. (2002). Strategies for survival in the war of talent. *Career Development International, 6*(1), 52–55.

Hayes, A. F. (2012). PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modelling. Retrieved August 22, 2015, from http://www.afhayes.com/public/process2012.pdf.

Hellgren, J., & Sverke, M. (2003). Does job insecurity lead to impaired well-being or vice versa? Estimation of cross-lagged effects using latent variable modelling. *Journal of Organizational Behavior*, *24*, 215-236. doi:10.1002/job.184.

Herbert, M. (2011). *An exploration of the relationships between psychological capital (hope, optimism, self-efficacy, resilience), occupational stress, burnout, and employee engagement.* Unpublished master's thesis, Stellenbosch University, Stellenbosch, South Africa.

Heslin, P. A. (2005). Conceptualizing and evaluating career success. *Journal of Organizational behavior*, *26*(2), 113-136.

Highhouse, S., Stierwalt, S.L., Bachiochi, P, Elder, A.E., & Fisher, G. (1999). Effects of advertised human resource management practices on attraction of African American applicants. *Personnel Psychology, 52*(2), 425-26.

Hillmer, S., Hillmer, B., & McRoberts, G. (2004). The real costs of turnover: Lessons from a call center. *Human Resource Planning, 27*(3), 34−41.

Hobfoll, S.E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist, 44,* 513–524.

Hobfoll, S.E., Jonson, R.J., Ennis, N., & Jackson, A.P. (2003). Resource loss, resource gain and emotional outcomes among inner city women. *Journal of Personality and Social Psychology, 84*, 632-643.

Hochschild, A.R. (2012). *The managed heart: Commercialization of human feelings.* Berkley, CA: University of California Press.

Hollyforde, S., & Whiddett, S. (2002). *The Motivation Handbook.* London: CIPD Publishing.

Hom, P.W., & Kinichi, A.J. (2001). Towards a greater understanding of how dissatisfaction drives employee turnover. *Academy of Management Journal, 44*, 975–98.

Hoonakker, P., Carayon, P., & Korunka, C. (2013). Using the Job-Demands-Resources model to predict turnover in the information technology workforce – General effects and gender differences. *Horizons of Psychology, 22*, 51-65.

Hoonakker, P.L., Carayon, P., & Schoepke, J. (2005). Work family conflict in the IT work force. In P. Carayon, B. Kleiner, M. Robertson, & P. Hoonakker (Eds.), *Human Factors in Organizational Design and Management,* 81–86.

Hoonakker, P., Carayon, P., Schoepke, J., & Marian, A. (2004). Job and Organizational Factors as Predictors of Turnover in the IT Work Force: Differences between Men and Women. *Working with Computing Systems,* 126-131.

Hooper, D., Coughlan, J., & Mullen, M.R. (2008). Structure equation modelling: Guidelines for determining model fit. *Electronic Journal of Business Research Methods, 6*(1), 53-60.

Houkes, I., Janssen, P., De Jonge, J., & Bakker, A.B. (2003). Specific determinants of intrinsic work motivation, emotional exhaustion and turnover intention: A multi-sample longitudinal study. *Journal of Occupational and Organizational Psychology, 76,* 427–450.

Hoyt, J. & Gerloff, E.A. (1999). Organisational environment, changing economic conditions and the effective supervision of technical personnel: a management challenge. *Journal of High Technology Management Research, 10*(2), 275–294.

Human Capital Institute (2011). Connecting the dots: Comprehensive career development as a catalyst for employee engagement. Retrieved February 25, 2014, from http://www.lhh.com/en-US/thought-leadership/Documents/lhh-connecting-the-dots-career-development.pdf.

Hurley, A.E., Scandura, T.A., Schriesheim, C.A., Brannick, M.T., Seers, A., Van den Berg, R.J., & Williams, L.J. (1997). Exploratory and confirmatory factor analysis: Guidelines, issues, and alternatives. *Journal of Organizational Behavior, 18*, 667-683.

Huselid, M.A. (1995). The impact of human resource management practices on turnover, productivity, and corporate financial performance. *Academy of Management Journal, 38*(3), 635–672.

Hwang, I., & Kuo, J. (2006). Effects of job satisfaction and perceived alternative employment opportunities on turnover intention: An examination of public sector organisations. *The Journal of American Academy of Business, 8*, 254-259.

Igbaria, M., & Siegel, S.R. (1992). The reasons for turnover of information systems personnel. *Information and Management, 23,* 321–330.

Inoue, A., Kawakami, N., Tsuno, K., Shimazu, A., Tomioka, K., & Nakanishi, M. (2013). Job demands, job resources, and work engagement of Japanese employees: a prospective cohort study. *International archives of occupational and environmental health*, *86*(4), 441-449.

Insync Surveys (2014). *Why people stay: How to keep your best employees*. Retrieved September 7, 2015, from http://www.insyncsurveys.com.au/media/120087/2014_employee_retention_report_why_people_stay_how_to_keep_your_best_employees.pdf.

Irshad, M., & Afridi, F. (2007). Factors affecting employees Retention: Evidence from literature. *Abasyn Journal of Social Sciences*, *4*(2), 307-339.

Jackson, L.T.B., & Rothmann, S. (2005). An adapted model of burnout for educators in South Africa. *South African Journal of Education, 25*, 100-108.

Jacobs, E.J. (2005). *The Development of a Predictive Model of Turnover Intentions of Professional Nurses.* Unpublished doctoral thesis, Johannesburg, University of Johannesburg, South Africa.

James, L., & Mathew, L. (2012). Employee Retention Strategies. *Journal of Indian Management, July–September*, 79-87.

Janse van Rensburg, Y., Boonzaier, B., & Boonzaier, M. (2013). The job demands-resources model of work engagement in South African call centres: original research. *SA Journal of Human Resource Management*, *11*(1), 1-13.

Jawahar, I.M., & Hemmasi, P. (2006). Perceived organizational support for women's advancement and turnover intentions: The mediating role of job and employer satisfaction. *Women in Management Review, 21,* 643–661.

Jeve, Y.B., Oppenheimer, C., & Konje, J. (2015). Employee engagement within the NHS: a cross-sectional study. *International Journal of Health Policy and Management*, *4*(2), 85-90.

Johnson, J.V., & Hall, E.M. (1988). Job strain, work place social support, and cardiovascular disease: A cross-sectional study of a random sample of the Swedish working population. *American Journal of Public Health, 78,* 1336–1342. doi:10.2105/AJPH.78.10.1336.

Jones, F., & Fletcher, B.C. (1996). *Job control, physical health and psychological well-being*. In M. J. Schabracq, J. A. M. Winnubst, & C. L. Cooper (Eds.). Handbook of work and health psychology (pp. 121–142). Chichester: Wiley.

Jones, J.R., & Harter, J.K. (2005). Race effects on the employee engagement-turnover intention relationship. *Journal of Leadership and Organizational Studies, 11*(2), 78-88.

Kahn, W.A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal, 33*, 692-724.

Karimi, R., Omar, Z.B., Alipour, F., & Karimi, Z. (2014). The influences of role overload, role conflict and role ambiguity on occupational stress among nurses in selected Iranian hospitals. *International Journal of Asian Social Science, 4*(1), 34-40.

Kelly, J.P. & Richard, T.H. (1980). Role conflict, role clarity, job tension and job satisfaction in the brand manager position. *Journal of the Academy of Marketing Science, 8*(2), 120-137.

Kerlinger, F.N., & Lee, H.B. (2000). *Foundations of behavioural research* (4th ed.). USA: Harcourt College Publishers.

Kidd, J.M., & Smewing, C. (2001). The role of the supervisor in career and organizational commitment. *European Journal of Work and Organisational Psychology*, *10*(1), 25–40. dx.doi.org/10.1080/13594320042000016.

Kline, P. (1999). *The Handbook of psychological testing (*2nd ed.). London: Routledge.

Kochanski, J. & Ledford, G. (2001). "How to keep me": Retaining technical professionals. *Research Technology Management, 44*(3), 31–38.

Korunka, C., Hoonakker, P., & Carayon, P. (2008). Quality of Working Life and Turnover Intention in Information Technology Work. *Human Factors and Ergonomics in Manufacturing, 18*(4), 409-423.

Kothari, C.R. (2004). *Research Methodology: Methods and Techniques* (2nd ed.). New Delhi: New Age International Publishers.

Kotze, K., & Roodt, G. (2005). Factors that affect the retention of managerial and specialist staff: An exploratory study of an employee commitment model. *SA Journal of Human Resource Management, 3*(2), 48–55.

Kraimer, M.L., Seibert, S.E., Wayne, S.J., Liden, R.C., & Bravo, J. (2011). Antecedents and outcomes of organizational support for development: The critical role of career opportunities. *Journal of Applied Psychology*, *96*(3), 485–500. doi.org/10.1037/a0021452, PMid:21114356.

Kular, S., Gatenby, M., Rees, C., Soane, E., & Truss, K. (2008). Employee engagement: A literature review. *Working Paper Series 19*, Kingston Business School. ISBN No. 1-872058-39-6/978-1-872058-39-9/9781872058399.

Kumar, C.R. (2008). *Research Methodology.* New Delhi: APH Publishing Corporation.

Lacity, M.C., Lyer, V.V., & Rudramuniyaiah, P.S. (2008). Turnover intentions of Indian IS professionals. *Information Systems Frontiers on Outsourcing*, *10*, 225–241. doi.org/10.1007/s10796-007-9062-3.

Langelaan, S., Bakker, A.B., Schaufeli, W.B., Van Rhenen, W., & Van Doornen, L.J.P. (2006). Do burn-out and work-engaged employees differ in the functioning of the hypothalamic-pituitary-adrenal axis? *Scandinavian Journal of Work, Environment and Health, 32*, 339-348.

LePine, J.A., Podsakoff, N.P., & LePine, M.A. (2005). A meta-analytic test of the challenge stressor–hindrance stressor framework: An explanation for inconsistent relationships among stressors and performance. *Academy of Management Journal, 48,* 764–775. doi:10.5465/AMJ.2005.18803921.

Little, B., & Little, P. (2006). Employee engagement: Conceptual issues. *Journal of Organizational Culture, Communications and Conflict*, *10*(1), 111–120.

Loeppke, R., Taitel, M., Haufle, V., Parry, T., Kessler, R.C., & Jinnett, K. (2009). Health and productivity as a business strategy: A multi-employer study. *Journal of Occupational and Environmental Medicine, 51*(4), 411–428. doi.org/10.1097/JOM.0b013e3181a39180.

Lok, P. & Crawford, J. (1999). The relationship between commitment and organisational culture, subculture, leadership style and job satisfaction in organizational change and development. *Leadership and Organisational Development Journal, 20*(1), 365-374.

Lui, C., Wang, H., Lu, J., Du, D., & Bakker, A.B. (2014). Does work engagement increase person–job fit? The role of job crafting and job insecurity. *Journal of Vocational Behaviour, 85*, 142-152.

Lumley, E. (2010). *Exploring the relationship between career anchors, job satisfaction and organisational commitment*. Unpublished master's thesis, University of South Africa, Pretoria, South Africa.

Lumley, E.J., Coetzee, M., Tladinyane, R., & Ferreira, N. (2011). Exploring the job satisfaction and organisational commitment of employees in the information technology environment. *South African Business Review*, *15*(1), 100–118.

Luthans, F. (2002). The need for and meaning of positive organizational behaviour. *Journal of Organizational Behavior, 23*, 695-706.

Lyons, A.C., Cude, B., Lawrence, F.C., & Gutter, M. (2005). Conducting research online: Challenges facing researches in family and consumer sciences. *Family and Consumer Science Research Journal. 33*(4), 341-356.

Lyons, J.S., Howard, K.I., O'Mahoney, M.T., & Lish, J.D. (1997). *The measurement and management of clinical outcomes in mental health.* New York: John Wiley & Sons.

Macey, W.H., & Schneider, B. (2008). Engaged in engagement: We are delighted we did it. *Industrial and Organizational Psychology, 1,* 76–83.

Mak, B.L., & Sockel, H. (2001). A confirmatory factor analysis of IS employee motivation and retention. *Information & Management*, *38*, 265–276.

Mallol, C.M., Holton, B.C., & Lee, T.W. (2007). *Job embeddedness in a culturally diverse environment. Journal of Business Psychology, 22*(1), 35-44.

Mardanov, I.S., Heischmidt, K., & Henson, A. (2008). Leader-member exchange and job satisfaction bond and predicted employee turnover. *Journal of Leadership and Organisational Studies, 15*(2), 159−175. doi:10.1177/1548051808320985.

Markos, S., & Sridevi, M.S. (2010). Employee engagement: The key to improving performance. *International Journal of Business and Management*, *5*(12), 89–96.

Marsh, H.W. (1996). Positive and negative global self-esteem: A substantively meaningful distinction or artifactors?. *Journal of Personality and Social Psychology*, *70*(4), 810-819.

Martin, A., (2007). *Employee perceptions of organisational commitment, job satisfaction, and turnover intentions in a post-merger institution.* Unpublished master's thesis, University of Johannesburg, Johannesburg, South Africa.

Martin, A., & Roodt, G. (2008). Perceptions of organisational commitment, job satisfaction and turnover intentions in a post-merger South African tertiary institution. *SA Journal of Industrial Psychology, 34*(1), 23-31.

Martins, N., & Coetzee, M. (2007). Organisational culture, employee satisfaction, perceived leader emotional competency and personality type: An exploratory study in a South African engineering company. *South African Journal of Human Resource Management, 5*(2), 20-32.

Maslach, C. (1993). *Burnout: a multidimensional perspective*. In Schaufeli, W.B., Maslach, C. & Marek, T. (Eds.), *Professional Burnout: Recent Developments in Theory and Research,* 19–32. Washington, DC: Taylor & Francis.

Maslach, C., Jackson, S.E., & Leiter, M. (1996*). Maslach Burnout Inventory: Manual* (3rd ed.). Palo Alto, CA: Consulting Psychologists Press.

Maslach, C., & Leiter, M.P. (1997). *The truth about burnout: How organizations cause personal stress and what to do about it.* San Francisco: Jossey-Bass.

Mathieu, J.E., & Zajac, D.M. (1990). A review and meta-analysis of the antecedents, correlates and consequences of organizational commitment. *Psychological Bulletin*, *108,* 171–194.

Mauno, S., Kinnunene, U., & Roukolainen, M. (2007). Job demands and resources as antecedents of work engagement: A longitudinal study. *Journal of Vocational Behaviour, 70*, 149-171.

May, D.R., Gilson, R.L., & Harter, L.M. (2004). The psychological conditions of meaningfulness, safety, and availability and the engagement of the human spirit at work. *Journal of Occupational and Organizational Psychology, 77*, 11-37.

McCarthy, G., Tyrell, M.P., & Lehane, E. (2007). Intention to "leave" or "stay" in nursing. *Journal of Nursing Management, 15*, 248-255.

McDuff, E.M., & Mueller, C.W. (2000). The ministry as an occupational labour market: Intentions to leave an employer (church) versus intentions to leave a profession (ministry). *Work and Occupations*, *27*, 89-116.

McGee, M.K. (2005). *Retention Tension.* Retrieved April 7, 2015, from http://www.informationweek.com/retention-tension/d/d-id/1037653?.

McKnight, D.H., Phillips, B., & Hardgrave, B.C. (2009). Which reduces IT turnover intention the most: Workplace characteristics or job characteristics? *Information & Management, 46*, 167–174.

Mehta, D., & Mehta, N.K. (2013). Employee engagement: A literature review. *Economia. Seria Management, 16*(2), 208-215.

Meijman, T.F. & Mulder, G. (1998). *Psychological aspects of workload*. In P.J. Drenth, H. Thierry & C.J. de Wolff (Eds.). *Handbook of work and organisational psychology* (2nd ed., pp. 5-33). Hove: Psychology Press.

Mendes, F., & Stander, M.W. (2011). Positive organisation: The role of leader behaviour in work engagement and retention. *SA Journal of Industrial Psychology*, *37*(1), 1-13.

Mensele, C., & Coetzee, M. (2014). Job embeddedness, organisational commitment and voluntary turnover of academic staff at higher education institutions in South Africa. *South African Journal of Labour Relations, 38*(1), 9-30.

Merrick, A. (1998). Companies go the extra miles to retain employees. *R&D, 40*(10), 3-4.

Meyer, J.P., & Gagné, M. (2008). Employee engagement from a self-determination theory perspective. *Industrial and Organizational Psychology, 1*, 60–62.

Mitchell, T.R., Holtom, B.C., & Lee, T.W. (2001a). How to keep your best employees: Developing an effective retention policy. *The Academy of Management Executive*, *15*(4), 96–109.

Mitchell, T.R., Holtom, B.C., Lee, T.W., Sablynski, C.J., & Erez, M. (2001b). Why people stay: Using job embeddedness to predict voluntary turnover. *Academy of Management Journal, 44*(6), 1102-1121.

Mobley, W.H. (1977). Intermediate linkages in the relationship between job satisfaction and employee turnover. *Journal of Applied Psychology, 62*, 237-240.

Mohlala, J., Goldman, G.A., & Goosen, X. (2012). Employee retention within the Information Technology division of a South African bank. *South African Journal of Human Resource Management, 10*(2), 1-11.

Montgomery, A.J., Peeters, M.C.W., Schaufeli, W.B., & Den Ouden, M. (2003). Work-home interference among newspaper managers: Its relationship with burnout and engagement. *Anxiety, Stress and Coping*, *16*(2), 195–211. doi.org/10.1080/10615806.2003.10382973.

Moore, J.E. (2000). Why is it happening? A causal attribution approach to work exhaustion consequences. *Academy of Management Review, 25*(2), 335-349.

Moore, S., Grunberg, L., & Greenberg, E. (2004). Repeated downsizing contact: The effects of similar and dissimilar layoff experiences on work and well-being outcomes. *Journal of Occupational Health Psychology, 9*(3), 247–257. doi.org/10.1037/1076-8998.9.3.247, PMid:15279519.

Moran, E.T., & Volkwein, J.F. (1992). The cultural approach to the formation of organisational-climate. *Human Relations, 45*(1), 19-47.

Morgeson, F.P., & Humphrey, S.E. (2006). The Work Design Questionnaire (WDQ): developing and validating a comprehensive measure for assessing job design and the nature of work. *Journal of Applied Psychology*, *91*(6), 1321-1339.

Morrell, K., Loan-Clarke, J., & Wilkonson, A. (2004). The role of shock in employee turnover. *British Journal of Management, 15*, 335-349.

Morris J.A., & Feldman, D.C. (1996). The dimensions, antecedents, and consequences of emotional labor. *Academy of Management Review*, *21*(4), 986-1010.

Mossholder, K.W., Settoon, R.P., & Henagan, S.C. (2005). A relational perspective on turnover: Examining structural, attitudinal, and behavioural predictors. *Academy of Management Journal, 48*(4), 607-618.

Mostert, K., Cronje, S., & Pienaar, J. (2006). Job resources, work engagement and the mediating role of positive work-home interaction of police officers in the North-West province. *Acta Criminologica*, *19*(3), 64−87.

Mowday, R.T, Porter, L.W., & Steers, R. (1982). Organisational linkages: The psychology of commitment, absenteeism and turnover. San Diego, CA: Academic Press.

Mowday, R.T., Steers, R., & Porter, L. (1979). The measurement of organizational commitment. *Journal of Vocational Behavior*, *14,* 224-247.

Mukherjee, A., & Malhotra, N. (2006). Does role clarity explain employee-perceived service quality? *International Journal of Service Industry Management, 17*, 444−473. doi:10.1108/09564230610689777

Naude, J.L.P., & Rothmann, S. (2004). The validation of the Utrecht Work Engagement Scale for emergency medical technicians in Gauteng. *South African Journal of Economic and Management Sciences, 7*(3), 459-468.

Ncede, N. (2013). *Factors contributing to employee turnover intention at a selected company in the Cape Town clothing industry*. Unpublished master's thesis. Cape Peninsula University of Technology, Cape Town, South Africa.

Nienaber, H., & Masibigiri, V. (2012). Exploring factors influencing voluntary turnover intent of generation X public servants: A South African case study. *Acta Commercii, 12*(1), 67-84.

Ninh, N.G. (2014). Some factors affect turnover intention of Information Technology employees in Vietnam. *Engineering Management Research, 3*(1), 89-98.

Norušis, M.J. (2005). *SPSS 14.0 Statistical Procedures Companion*. New Jersey: Prentice Hall.

Ogungbamila, B., Balogun, A.G., Ogungbamila, A., & Oladele, R.S. (2014). Job stress, emotional labour, and emotional intelligence as predictors of turnover intention: Evidence from two service occupations. *Mediterranean Journal of Social Sciences, 5*(6), 351-367.

Panoch, A. (2001). *The relationship between diversity and employee retention.* Unpublished master's thesis, University of Wisconsin-Stout, Menomonie.

Paré, G., & Tremblay, M. (2000). The measurement and antecedents of turnover intentions among IT professionals. CIRANO: Montreal, Canada.

Paré, G., Tremblay, M., & Lalonde, P. (2001). The role of organisational commitment and citizenship behaviours in understanding relations between human resource practices and turnover intentions of IT personnel. *Scientific Series, 24*, CIRANO, Montreal, Canada.

Paullay, I.M., Alliger, G.M., & Stone-Romero, E.F. (1994). Construct validation of two instruments designed to measure job involvement and work centrality. *Journal of Applied Psychology*, 79 (2), 224-228. doi: 10.1037/0021-9010.79.2.224.

Penna (2007). *Meaning at Work Research Report.* Retrieved February 25, 2014, from http://www.e-penna.com/newsopinin/research.spx.

Perez, M. (2008). *Turnover intent*. Unpublished diploma thesis, University of Zurich, Zurich.

Pergamit, M.R., & Veum, J.R. (1999). What is a promotion? *Industrial and Labor Relations Review, 52*(4), 581-601.

Perrin, T. (2003). *Working Today: Understanding what drives employee engagement*. The 2003 Towers Perrin Talent U.S. Report. Retrieved February 25, 2014, from http://www.keepem.com/doc_files/Towers_Perrin_Talent_2003(TheFinal).pdf.

Pienaar, M. (2010). *Factors affecting the attraction and retention of generation Y at a petroleum company: What role does corporate social responsibility play?* Unpublished masters' thesis, University of Cape Town, Cape Town, South Africa.

Podsakoff, P.M., MacKenzie, S.B., & Bommer, W.H. (1996). Transformational leader behaviors and substitutes for leadership as determinants of employee satisfactions, commitment, trust and organizational citizenship behaviors. *Journal of Management*, *22*(2), 259-298.

Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y., & Podsakoff, N.P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*(5), 879–903.

Podsakoff, N.P., LePine , J.A., & LePine, M.A. (2007). Differential challenge stressor-hindrance stressor relationships with job attitudes, turnover intentions, turnover, and withdrawal behavior: A meta-analysis. *Journal of Applied Psychology, 92*, 438–454. doi:10.1037/0021-9010. 92.2.438.

Porath, C., Spreitzer, G., Gibson, C., & Garnett, F.G. (2012). Thriving at work: Toward its measurement, construct validation, and theoretical refinement. *Journal of Organizational Behavior*, *33*(2), 250-275.

Poulin, J.E. (1995). Job satisfaction of social work supervisors and administrators. *Administration in Social Work, 19*(4), 35-49.

Prieto, L.L., Soria, M.S., Martinez, I.M., & Shaufeli, W. (2008). Extension of the job demands-resources model in the prediction of burnout and engagement among teachers overtime. *Psicothema, 20*(3), 354-360.

Prince, B.J. (2005). Career-focused employee transfer processes. *Career Development International, 10*(4), 293-309.

Purcell, J., Kinnie, N., Hutchinson, S., Rayton, B., & Swart, J. (2003). *Understanding the people and performance link: Unlocking the black box.* London: CIPD.

Quiñones, M., Van den Broeck, A., & De Witte, H. (2013). Do job resources affect work engagement via psychological empowerment? A mediation analysis. *Journal of Work and Organisational Psychology, 29,* 127-134.

Radey, M., & Figley, C.R. (2007). The social psychology of compassion. *Clinical Social Work Journal, 35*, 207−214. doi:10.1007/s10615-007-0087-3.

Rasch, R. (2013). Perception is reality: The importance of pay fairness to employees and organizations. *WorldatWork Journal Quarter 3*.

Reise, S.P., Morizot, J. & Hays, R.D. (2007). The role of the bifactor model in resolving dimensionality issues in health outcome measures. *Quality of Life Research, 16,* 19–37.

Rich, B.L., LePine, J.A., & Crawford, E.R. (2010). Job engagement: Antecedents and effects on job performance. *Academy of Management Journal, 53*, 617-635.

Richardsen, M. & Burke, R.J. (1993). Occupational stress and work satisfaction among Canadian women physicians. *Psychological Reports*, *72*, 811–821.

Roberts, D.R., & Davenport, T.O. (2002). Job engagement: why it's important and how to improve it. *Employment Relations Today*, *29*(3): 21–29.

Robinson, D., Perryman, S., & Hayday, S. (2004). *The drivers of employee engagement*. IES Report 408. ISBN 1 85184336 1.

Rogers, E.W. (2001). A theoretical look at firm performance in high technology organisations: What does existing theory tell us? *Journal of High Technology Management Research, 12*, 39–61.

Roodt, G. (2004). *Turnover intentions.* Unpublished document, University of Johannesburg, Johannesburg, South Africa.

Roodt, G., & Bothma, F.C. (1997). The cost of voluntary, controllable labour turnover. *Journal of Industrial Psychology*, *23*(1), 26–30. doi.org/10.4102/sajip.v23i1.619.

Rosenblatt, Z., Talmud, I., & Ruvio, A. (1999). A gender-based framework of the experience of job insecurity and its effects on work attitudes. *European Journal of Work and Organizational Psychology*, *8*, 197-217. doi:10.1080/135943299398320.

Rothmann, S. (2002). *Burnout and engagement: A fortigenic perspective.* Inaugural lecture presented at the North-West University, Potchefstroom, RSA.

Rothmann, S. (2003). Burnout and engagement: A South African perspective. *SA Journal of Industrial Psychology, 29*(4), 16-25.

Rothmann, S., & Jordaan, G.M.E. (2006). Job demands, job resources and work engagement of academic staff in South African higher educational institutions. *SA Journal of Industrial Psychology, 32*(4), 87-96.

Rothmann, S., Jorgensen, L.I., & Marais, C. (2011). Coping and work engagement in selected South African organisations. *SA Journal of Industrial Psychology, 37*(1), 107–117. dx.doi.org/10.4102/sajip.v37i1.962.

Rothmann, S., & Joubert, J.H.M. (2007). Job demands, job resources, burnout and work engagement of managers at a platinum mine in the North West Province. *South African Journal of Business Management, 38*(3), 49-61.

Rothmann, S., Mostert, K., & Strydom, M. (2006). A psychometric evaluation of the Job Demands-Resources Scale in South Africa. *SA Journal of Industrial Psychology, 32*(4), 76-86.

Rothmann, S., & Pieterse, A.J.H. (2007). Predictors of work-related well-being in Sector Education and Training Authorities. *South African Journal of Economic and Management Sciences, 10*, 298-312.

Rothmann, S., & Rothmann, S. (2010). Factors associated with employee engagement in South Africa. *SA Journal of Industrial Psychology, 36* (2), 1-12.

Roztocki, N., & Morgan, S.D. (2002). *The use of web-based surveys for academic research in the field of engineering.* Submitted to the 2002 American Society of Engineering Management (ASEM) National Conference.

Russel, J.E.A. (2008). Promoting subjective well-being at work. *Journal of Career Assessment, 16*, 117−131. doi:10.1177/1069072707308142.

Ryan, R.M., & Deci, E.L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development and well-being. *American Psychologist, 55*, 68-78.

Saks, A.M. (2006). Antecedents and consequences of Employee engagement. *Journal of Managerial Psychology*, *21(*6), 660–619.

Salanova, M., Agut, S., & Peiró, J.M. (2005). Linking organizational resources and work engagement to employee performance and customer loyalty: the mediation of service climate. *Journal of Applied Psychology*, *90*(6), 1217-1227.

Salanova, M., Llorens, S., Cifre, E., Martinez, I., & Schaufeli, W.B. (2003). Perceived collective efficiency, subjective well-being and task performance among electronic work groups: An experimental study. *Small Group Research, 34*, 43-73.

Sanborn, P., & Oehler, K. (2013*). 2013 Trends in global employee engagement*. *Report highlights.* Retrieved February 11, 2014, from http://www.aon.com/attachments/human-capital-consulting/2013_Trends_in_Global_Employee_Engagement_Highlights.pdf.

Schafer, L.J., & Olsen, M.K. (1998). Multiple imputation for multivariate missing-data problems: A data analyst's perspective. *Multivariate Behavioral Research, 33*(4), 545-571.

Schaufeli, W.B., & Bakker, A.B. (2003). Utrecht Work Engagement Scale. Preliminary manual. Utrecht: Utrecht University.

Schaufeli, W.B., & Bakker, A.B. (2004). Job demands, job resources, and their relationship with burnout and engagement. A multi-sample study. *Journal of Organisational Behavior, 25*, 293-315.

Schaufeli, W.B., Bakker, A.B., & Salanova, M. (2006). The measurement of work engagement with a short questionnaire: A cross-national study. *Educational and Psychological Measurement, 66*(4), 701–716.

Schaufeli, W.B., & Salanova, M. (2007). Efficiency or inefficiency, that's the question: Burnout and work engagement, and their relationships with efficacy beliefs. *Anxiety, Stress, and Coping, 20*(2), 177-196.

Schaufeli, W.B., Salanova, M., González-Romá, V., & Bakker, A.B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness Studies, 3,* 71–92.

Schaufeli, W.B., & Taris, T.W. (2005). The conceptualization and measurement of burnout: Common ground and worlds apart. *Work & Stress, 19,* 256–262. doi:10.1080/02678370500385913.

Schaufeli, W.B., & Van Rhenen, W. (2006). "Over de rol van positieve en negatieve emoties bij het welbevinden van managers: Een studie met de Job-related Affective Well-being Scale (JAWS)" ("About the role of positive and negative emotions in managers' well-being: A study using the Job-related Affective Well-being Scale (JAWS)"). *Gedrag & Organisatie, 19*, 323-244.

Schmitt, N., & Stults, D.M. (1985). Factors defined by negatively keyed items: The result of careless respondents?. *Applied Psychological Measurement*, *9*(4), 367-373.

Schutte, N., Toppinen, S., Kalimo, R., & Schaufeli, W.B. (2000). The factorial validity of the Maslach Burnout Inventory-General Survey (MBI-GS) across occupational groups and nations. *Journal of Occupational and Organizational Psychology, 73*, 53-66.

Seligman, M.E.P. (2003). Positive psychology: Fundamental assumptions. *The Psychologist, 16*, 126-127.

Seligman, M.E.P., & Csikszentmihalyi, M. (2000). Positive psychology: an introduction. *American Psychologist, 55*, 5-14.

Sempane, M.E., Rieger, H.S., & Roodt, G. (2002). Job satisfaction in relation to organisational culture. *SA Journal of industrial Psychology*, *28*(2), 23-30.

Shaheen, A., & Farooqi, Y.A. (2014). Relationship among employee motivation, employee commitment, job involvement, employee engagement: A case study of University of Gujrat, Pakistan. *International Journal of Multidisciplinary Sciences and Engineering*, *5*(9), 12-18.

Shuck, B. (2011). Four emerging perspectives of employee engagement: An integrative literature review. *Human Resource Development Review, 10*, 304-328. doi:10.1177/1534484311410840.

Shuck, B., & Wollard, K. (2010). Employee engagement and HRD: A seminal review of the foundations. *Human Resource Development Review*, *9*(1), 89-110.

Siegrist, J. (1996). Adverse health effects of high-effort/low-reward conditions. *Journal of Occupational Health Psychology, 1*, 27–41. doi:10.1037/1076-8998.1.1.27.

Sigler, K.J. (1999). Challenges of employee retention. *Management Research News, 22*(10), 1-6.

Silla, I., De Cuyper, N., Gracia, F.J., Peirò, J.M., & De Witte, H. (2009). Job insecurity and well-being: Moderation by employability. *Journal of Happiness Studies*, *10*, 739-751.

Skitka, L.J., & Sargis, E.G. (2006). The internet as psychological laboratory. *Annual Review of Psychology, 57*, 529-555.

Smyth, R., Zhai, Q., & Li, X. (2009). Determinants of turnover intentions among Chinese off farm migrants. *Econ Change Restruct, 42,* 189-209. .doi.org/10.1007/ s10644-008-9067-z.

Snyder, C.R., & Lopez, S.J. (2002). *Handbook of positive psychology*. New York: Oxford University Press.

Som, R.K. (1996). *Practical sampling techniques* (2nd ed.). Marcel Dekker Inc.: New York.

Sonnentag, S. (2003). Recovery, work engagement, and proactive behaviour: A new lot at the interface between non-work and work. *Journal of Applied Psychology, 88*, 518–528.

Spreitzer, G.M. (1995). Psychological empowerment in the workplace: Dimensions, measurement, and validation. *Academy of Management Journal*, *38*(5), 1442-1465.

Spreitzer, G.M. (1996). Social structural characteristics of psychological empowerment. *Academy of Management Journal, 39*(2), 483-505.

Spreitzer, G.M., Kizilos, M.A., & Nason, S.W. (1997). A dimensional analysis of the relationship between psychological empowerment and effectiveness, satisfaction, and strain. *Journal of Management*, *23,* 279–704.

Stander, M.W., & Rothmann, S. (2010). Psychological empowerment, job insecurity and employee engagement. *SA Journal of Industrial Psychology*, *36*(1), 1-8.

Stanz, K., & Greyling, J. (2010). Turnover of nursing employees in a Gauteng hospital group. *SA Journal of Industrial Psychology*, *36*(1), 1-11.

Steele, J.P., & Fullagar, C.J. (2009). Facilitators and outcomes of student engagement in a college setting. *The Journal of Psychology, 143*, 5−27.

Storm, K., & Rothmann, S. (2003). A psychometric analysis of the Utrecht Work Engagement Scale in the South African Police Service. *SA Journal of Industrial Psychology, 29*, 62-70.

Strauss, A., & Corbin, J. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory*. London: Sage Publications.

Sturges, J., & Guest, D. (2001). Don't leave me this way! A qualitative study of influences on the organisational commitment and turnover intentions of graduates early in their career. *British Journal of Guidance and Counselling*, *29*(4), 447-462.

Sümer, H., & Van Den Ven, C. (2008). *A proposed model of military turnover*. Technical Report. NATO Research and Technology Organization (Reference Number: RTO-TR-HFM-107).

Supino, P.G., & Borer, J.S. (2012). *Principles of research methodology: A guide for clinical investigators*. London: Springer Science & Business Media.

Susskind, A.M. (2007). Downsizing supervisors' communication networks and reactions: A longitudinal examination of information flow and turnover intentions. *Communication Research*, *34*(2), 156-184.

Sverke, M., Hellgren, J., & Näswall, K. (2002). No security: A meta-analysis and review of job insecurity and its consequences. *Journal of Occupational Health Psychology, 7*, 242–264.

Takase, M., Maude, P., & Manias, E. (2005). Comparison between nurses' professional needs and their perceptions of their jobs. *Australian Journal of Advanced Nursing, 23*(2), 28-33.

Takawira, N., Coetzee, M., & Schreuder, D. (2014). Job embeddedness, work engagement and turnover intention of staff in a higher educational institution: An exploratory study. *SA Journal of Human Resource Management, 12*(1), 1-10.

Tang, W., Cui, Y., & Babenko, O. (2014). Internal consistency: Do we really know what it is and how to assess it? *Journal of Psychology and Behavioural Science, 2*(2), 2374-2399.

Terre Blanche, M., Durrheim, K., & Painter, D. (2006). *Research in practice. Applied methods for the social sciences* (2nd ed.). Cape Town: UCT Press.

Thirapatsakun, T., Kuntonbutr, C., & Mechinda, P. (2014). The relationship among job demands, work engagement, and turnover intentions in the multiple groups of different levels of perceived organisational supports. *Universal Journal of Management, 2*(7), 272-285.

Thomas, K., & Velthouse, B.A. (1990). Cognitive elements of empowerment: an interpretive model of intrinsic task motivation. *Academy of Management Review*, *15*, 666–681.

Tims, M, & Bakker, A.B. (2010). Job crafting: Towards a new model of individual job redesign. *SA Journal of Industrial Psychology, 36*(2), 1-9.

Tims, M., Bakker, A. B., & Derks, D. (2012). Development and validation of the job crafting scale. *Journal of Vocational Behavior, 80*, 173–186.

Tims, M, Bakker, A.B., & Derks, D. (2013). The impact of job crafting on job demands, job resources and well-being. *Journal of Occupational Health Psychology, 18*(2), 230-240.

Totterdell, P., Wood, S., & Wall, T. (2006). An intra-individual test of the demands-control model: A weekly diary study of psychological strain in portfolio workers. *Journal of Occupational and Organizational Psychology, 79,* 63–84.

Tourangeau, R. (2004). Survey research and societal change. *Annual Review of Psychology, 55*, 775-801.

Towers Watson Global Workforce Study (2012). *Engagement at risk: Driving strong performance in a volatile global environment.* Retrieved February 11, 2014, from http://towerswatson.com/assets/pdf/2012-Towers-Watson-Global-Workforce-Study.pdf.

Tremblay, M.A., & Messervey, D. (2011). The Job Demands-Resources model: Further evidence for the buffering effect of personal resources. *SA Journal of Industrial Psychology, 37*(2), 1-10. doi:10.4102/sajip.v37i2.876.

Trevor, C.O., Gerhart, B., & Boudreau, J.W. (1997). Voluntary turnover and job performance: curvilinear and the moderating influences of salary growth and promotions**.** *Journal of Applied Psychology, 82*(1): 44-61.

Tsui, A.S., Pearce, J.L., Porter, L.W., & Hite, J.P. (1995). Choice of employee-organization relationship: Influence of external and internal organizational factors. *Research in Personnel and Human Resources Management*, *13*(1), 117-151.

Turner, N., Barling, J., & Zacharatos, A. (2002). *Positive psychology at work*. In C.R. Snyder & S.J. Lopez (Eds.). Handbook of positive psychology (pp. 715-728). Oxford, UK: Oxford University Press.

Udo, G.J., & Tor-Guimaraes, M.I. (1997). An investigation of the antecedents of turnover for manufacturing plant managers. *International Journal of Operational Management, 19*(9)*,* 912–930.

Van den Broeck, A., De Cuyper, N., De Witte, H., & Vansteenkiste, M. (2010). Not all job demands are equal: Differentiating job hindrances and job challenges in the Job Demands-Resources model. *European Journal of Work and Organizational Psychology, 19,* 735–759. doi: 10.1080/13594320903223839.

Van den Broeck, A., Vansteenkiste, M., De Witte, H., & Lens, W. (2008). Explaining the relationships between job characteristics, burnout, and engagement: The role of basic psychological need satisfaction. *Work & Stress, 22*(3), 277-294.

Van der Doef, M., & Maes, S. (1999). The job demand-control (-support) model and psychological well-being: a review of 20 years of empirical research. *Work & Stress*, *13*(2), 87-114.

Van der Linde, R. (2004). *Work wellness, sense of coherence and health of protection services members*. Unpublished doctoral thesis, North-West University, Potchefstroom, South Africa.

Van der Walt, M. (2008). *Job demands, job resources, burnout and engagement of employees in the mining industry in South Africa.* Unpublished master's thesis, North-West University, Potchefstroom, South Africa.

Van der Westhuizen, N. (2014). *Turnover intentions and employee engagement: Exploring eliciting factors in a South African audit firm*. Unpublished master's thesis, University of Stellenbosch, Stellenbosch, South Africa.

Van Dyk, J. (2011). *The relationship between organisational commitment, retention factors and perceived job embeddedness.* Unpublished master's thesis, University of South Africa, Pretoria, South Africa.

Van Dyk, J., & Coetzee, M. (2012). Retention factors in relation to organisational commitment in medical and information technology services. *SA Journal of Human Resource Management, 10*(2), 1–11.

Venkatesh, D.N. (2013). Identifying the key engagement drivers and level of employee engagement at a technology outsourcing firm in Hyderabad, India. *Journal of Business and Management*, *12*(5), 86–99.

Verquer, M.L., Beehr, T.A., & Wagner, S.H. (2003). A meta-analysis of relations between person–organization fit and work attitudes. *Journal of Vocational Behavior, 63,* 473–489.

Von Glinow, M.A. & Mohrman, S.A. (1990). Attachment and withdrawal patterns of high technology workers. *Journal of High Technology Management Research, 1*(2), 149–165.

Walton, R.E. (1985). From control to commitment in the workplace. *Harvard Business Review, 63*(2), 77-84.

Weber, J.A., & Bradley, K.D. (no date). Strengths and weaknesses of conducting web-based surveys: A review of the literature. Retrieved February 17, 2015, from http://www.uky.edu/~kdbrad2/Web-basedSurveys.pdf.

Wefald, A.J. & Downey, R.G. (2009). Construct dimensionality of engagement and its relation with satisfaction. *The Journal of Psychology, 143*(1), 91–111.

Weiner, I.B., Schinka, J.A., & Velicer, W.F. (2003). *Handbook of Psychology. Research methods in Psychology* (2nd ed.). New Jersey: John Wiley & Sons.

Weiss, H.M., & Cropanzano, R. (1996). Affective events theory: A theoretical discussion of the structure, causes and consequences of affective experiences at work. *Research in Organizational Behavior*, *18,* 1-74.

Wentland, D. (2003). The strategic training of employees model: balancing organizational constraints and training content. *SAM Advanced Management Journal*, *68*(1), 56-64.

West, M. (2005). Hope springs. *People Management*, *13*(10), 38-39. Retrieved July 6, 2015, from http://www.cipd.co.uk/ pm/ peoplemanagement/ b/weblog/archive/2013/01/29/ hopesprings-2005-10.aspx.

Whitaker, B.G., Dahling, J.J., & Levy, P. (2007). The development of a feedback environment and role clarity model of job performance. *Journal of Management*, *33*(4), 570-591.

Wright, K.B. (2005). Researching internet-based populations: Advantages and disadvantages of online survey research, online questionnaire authoring software packages, and Web survey services. *Journal of Computer-Mediated Communications, 10*(3). Retrieved February 18, 2015, from http://jcmc.indiance.edu/vol10/issue3/wright.html.

Wordpress (2011). *Advantages and Disadvantages of Quantitative research*. Retrieved February 25, 2014, from http:// picardsflute.wordpress.com/2011/01/12/ advantages-and-disadvantages-of-quantitative-research.

Xanthopoulou, D., Bakker, A.B., Demerouti, E., & Schaufeli, W.B. (2009). Work engagement and financial returns: A diary study on the role of job and personal resources. *Journal of Occupational and Organizational Psychology, 82*, 183–200.

Yeager, D.S., Krosnick, J.A., Change, L., Javitz, H.S., Levendusky, M.S., Simpser, A., & Wang, R. (2011). Comparing the accuracy of the RDD telephone surveys and internet surveys conducted with probability and non-probability samples. *Public Opinion Quarterly, 75*(4), 709-747.

Zhao, W., & Zhou, X. (2008). Intraorganizational career advancement and voluntary turnover in a multinational bank in Taiwan. *Career Development International*, *13*(5), 402-424.

Zohar, D. (1999). When things go wrong: The effect of daily work hassles on effort, exertion and negative mood. *Journal of Occupational and Organizational Psychology, 72,* 265–283.

ANNEXURE A: INFORMATION LETTER

Title of Study:

The impact of job demands and job resources on work engagement and turnover intentions within the Information Technology division of a South African bank

Principal Investigator:	Miss Jana van Heerden
Research Supervisor:	Dr Marieta du Plessis

Dear participant

We invite you to participate in a research study which investigates the potential impact of job demands and job resources on work engagement and turnover intentions within the Information Technology division of a South African bank. Before you decide to participate in this study, it is important that you understand the main reasons for conducting the research and what would be required of you should you decide to participate. Please take the time to read the following information carefully. Please ask the researcher if there is anything that is not clear or if you need more information.

Study procedure

- You will be requested to complete an on-line, web-based questionnaire containing a number of questions about the organisation in which you work.
- The questionnaire is web-based to make it quick and simple to complete, and for fast reporting and analysis. A printed (paper based) version of the survey will be made available to those IT teams/team members without access to their own PCs/laptops.
- The nature of the questionnaire is based on four factors, namely the work engagement, job demands, job resources, and turnover intentions. These questionnaires have demonstrated acceptable reliability and validity to be used in research.
- Please read the questions carefully and select the appropriate response that most accurately represents your views on the specific topic. There are not right or wrong

answers to any opinion-related item (question). You are requested to provide your frank and honest opinion.

- To ensure overall consistency in your responses, you are requested to complete this questionnaire in one sitting at one computer. Completion of the questionnaire will take about 20 minutes.

Risks

The risks of this study are minimal. These risks are similar to those you experience when disclosing work-related information to others. You may decline to answer any of the questions and you may terminate your involvement at any time if you choose.

Benefits & Compensation:

There will be no direct benefit to you for your participation in this study. There will also be no compensation for completing the questionnaire. Your contribution will help the management of your organisation to gain a deeper understanding of the potential impact of job resources and job demands as antecedents of work engagement, and the resultant impact on employee turnover intentions within your division.

Confidentiality:

Your responses will be kept anonymous. Every effort will be made by the researcher to preserve your confidentiality including the following:

- The analysis of the data will be done entirely objectively by the researcher. Information from this research will be used solely for the purpose of this study and any publications that may result from this study. All other participants involved in this study will not be identified and their anonymity will be maintained.
- A summary report of the data will be made available to you and your organisation. However, no identifiable data w.r.t. biographical variables (i.e. age, gender, department, etc.) will be made available to your organisation.
- Participant data will be kept confidential except in cases where the researcher is legally obligated to report specific incidents. These incidents include, but may not be limited to, incidents of abuse and suicide risk.

Voluntary Participation:

Your participation in this study is voluntary. It is up to you to decide whether or not to take part in this study. You will be given an option at the start of the questionnaire to provide your

consent to continue with your participation. If you decide not to participate, you will immediately exit the questionnaire. If you decide to take part in this study, you are still free to withdraw at any time and without giving a reason. This will not affect the relationship you have with the researcher.

To access the questionnaire, click on the following link or paste the URL in your browser: **https://www.surveymonkey.com/r/L8SGYM8**

I greatly appreciate the time and efforts you have contributed into helping me further my research. If you have any concerns related to the process, confidentiality, or any other issue, you are welcome to contact me with any questions or comments with regard to this questionnaire or the nature of the evaluation.

Miss Jana van Heerden	**Dr Marieta du Plessis**	**Dr Bright Mahembe**
Principal researcher	Research supervisor	Head of Department
084 581 6210	(021) 959 3175	(021) 959 3184
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ANNEXURE B: INFORMED CONSENT

Title of Study:

The impact of job demands and job resources on work engagement and turnover intentions within the Information Technology division of a South African bank.

Principal Investigator: Miss Jana van Heerden

Research Supervisor: Dr Marieta du Plessis

INFORMED CONSENT

By signing this consent form, I confirm that I have read and understood the information and have had the opportunity to ask questions. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving a reason and without cost. I understand that I will be given a copy of the information letter, and the consent form (should I want this). By signing below, I voluntarily agree to take part in this study.

Name and surname: _____

Signature _____ Date _____

<u>Please note:</u> Your consent form and your completed questionnaire will be placed in two separate boxes. Therefore, by signing your name on this form, your responses will not be linked in any way to your completed questionnaire as these documents will be collected and stored separately.

ANNEXURE C: INTRODUCTION TO THE STUDY & INFORMED CONSENT

Dear participant

You are invited to participate in a research study which investigates the potential impact of job demands and job resources on work engagement and turnover intentions. Before you decide to participate in this study, it is important that you understand the main reasons for conducting the research and what would be required of you should you decide to participate. Please take the time to read the following information carefully.

Study procedure:

You are requested to complete this online, web-based questionnaire containing a number of questions about the organisation in which you work. Please read the questions carefully and select the appropriate response that most accurately represents your views on the specific topic. As there are not right or wrong answers to any opinion related item, you are requested to provide your frank and honest opinion. To ensure overall consistency in your responses, you are requested to complete this questionnaire in one sitting at one computer which will take about 10-15 minutes.

Risks:

The risks of this study are minimal and are similar to those you experience when disclosing work related information to others. You may decline to answer any of the questions and you may terminate your involvement at any time if you choose.

Benefits & Compensation:

There will be no direct benefit to you or compensation offered for your participation in this study. Your contribution will help the management team to gain a deeper understanding of the potential impact of job demands and resources on work engagement, and the resultant impact on employee turnover intentions within your division.

Confidentiality:

Your responses will be kept anonymous and every effort will be made to preserve your confidentiality. The data analysis will be done entirely objectively by the researcher. Information from this research will be used solely for the purpose of this study and all other participants involved in this study will not be identified and their anonymity will be maintained. A summary report of the data will be made available to you and your organisation, excluding any identifiable data w.r.t. biographical variables (i.e. age, gender, department, etc.).

Voluntary Participation:

As your participation in this study is voluntary, you will be given an option at the start of the questionnaire to provide your consent to continue with your participation. If you decide to take part in this study, you are still free to withdraw at any time and without giving a reason.

If you decide not to participate, you can immediately exit the questionnaire.

If you have any concerns related to the process, confidentiality, or any other issue, you are welcome to contact me with any questions or comments with regard to this questionnaire or the nature of the evaluation.

Miss Jana van Heerden
Tel: 021 809 5947(w)/Email: janavh2110@gmail.com

Dr Marieta du Plessis
Tel: 021 959 3175(w)/Email: mduplessis@uwc.ac.za

INFORMED CONSENT

By providing my consent, I confirm that I have read and understood the information and have had the opportunity to ask questions. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving a reason and without cost. I voluntarily agree to take part in this study.

Q1	Do you consent to participate in this survey?
	Yes
	No

SECTION 1: BIOGRAPHICAL DETAILS

Q2	Which department do you belong to?
	Department 1
	Department 2
	Department 3
	Department 4
	Department 5
	Department 6
	Department 7

Q3	How long have you been with the organisation (in completed years)?
	Less than 1 year
	1 to 3 years
	4 to 7 years
	8 to 10 years
	Longer than 10 years

Q4	What is your current employment status?
	Permanent
	Contract

Q5	What is your age group (in completed years)?
	Younger than 21 years
	21 - 25 years
	26 - 29 years

	30 - 38 years
	39 – 45 years
	46 – 55 years
	Older than 55 years

Q6	**What is your gender?**
	Male
	Female

Q7	**What is your race?**
	African/Black
	Coloured
	Indian/Asian
	White

ANNEXURE D: JOB DEMANDS-RESOURCES SCALE (JDRS)

SECTION 2

The following section aims to ascertain you perceptions of specific job demands and job resources within your current organisation.

Please read each question and indicate your response using the scale provided for each questions:

Q8	I have too much work to do.	**Never**	**Sometimes**	**Often**	**Always**
Q9	I work under time pressure.	**Never**	**Sometimes**	**Often**	**Always**
Q10	I find that I do not have enough work.	**Never**	**Sometimes**	**Often**	**Always**
Q11	I have to give attention to many things at the same time.	**Never**	**Sometimes**	**Often**	**Always**
Q12	My work requires continuous attention from me.	**Never**	**Sometimes**	**Often**	**Always**
Q13	I have to remember many things in my work	**Never**	**Sometimes**	**Often**	**Always**
Q14	In my job, I am confronted with things that affect me personally	**Never**	**Sometimes**	**Often**	**Always**
Q15	I have contact with difficult people in my work.	**Never**	**Sometimes**	**Often**	**Always**

Q16	My work puts me in emotionally upsetting situations.	**Never**	**Sometimes**	**Often**	**Always**
Q17	In my work, I have to repeatedly do the same things.	**Never**	**Sometimes**	**Often**	**Always**
Q18	My work uses my skills and capacities to their full potential.	**Never**	**Sometimes**	**Often**	**Always**
Q19	I have enough variety in my work.	**Never**	**Sometimes**	**Often**	**Always**
Q20	My job offers me opportunities for personal growth and development.	**Never**	**Sometimes**	**Often**	**Always**
Q21	I feel that I can achieve something in my work.	**Never**	**Sometimes**	**Often**	**Always**
Q22	My job offers be the opportunity for independent thought and action.	**Never**	**Sometimes**	**Often**	**Always**
Q23	I have freedom in carrying out my work activities.	**Never**	**Sometimes**	**Often**	**Always**
Q24	I am allowed to influence the planning of my work activities.	**Never**	**Sometimes**	**Often**	**Always**
Q25	I can participate in the decision about when a job must be completed.	**Never**	**Sometimes**	**Often**	**Always**
Q26	I can count on my colleagues for help when I come across difficulties at work.	**Never**	**Sometimes**	**Often**	**Always**

Q27	If necessary, I can ask my colleagues for help.	**Never**	**Sometimes**	**Often**	**Always**
Q28	I get on well with my colleagues.	**Never**	**Sometimes**	**Often**	**Always**
Q29	I can count on my manager when I come across difficulties at work.	**Never**	**Sometimes**	**Often**	**Always**
Q30	I get on well with my manager.	**Never**	**Sometimes**	**Often**	**Always**
Q31	I feel that my manager appreciates my work.	**Never**	**Sometimes**	**Often**	**Always**
Q32	I know exactly what other people expect of me in my work.	**Never**	**Sometimes**	**Often**	**Always**
Q33	I know exactly with I am responsible for.	**Never**	**Sometimes**	**Often**	**Always**
Q34	I know exactly what my manager thinks about my performance.	**Never**	**Sometimes**	**Often**	**Always**
Q35	I receive sufficient information about the purpose of my work.	**Never**	**Sometimes**	**Often**	**Always**
Q36	I receive sufficient information about the results of my work.	**Never**	**Sometimes**	**Often**	**Always**
Q37	My manager informed me about how well I am doing in my work.	**Never**	**Sometimes**	**Often**	**Always**

Q38	I am kept adequately up to date about important issues in my department.	**Never**	**Sometimes**	**Often**	**Always**
Q39	The department's decision-making process is clear to me.	**Never**	**Sometimes**	**Often**	**Always**
Q40	It is clear to me who I should address within the department about specific problems.	**Never**	**Sometimes**	**Often**	**Always**
Q41	I can discuss work problems with my manager.	**Never**	**Sometimes**	**Often**	**Always**
Q42	I can participate in decisions about the nature of my work.	**Never**	**Sometimes**	**Often**	**Always**
Q43	I have a direct influence on the department's decisions	**Never**	**Sometimes**	**Often**	**Always**
Q44	I have contact with my colleagues as part of my work.	**Never**	**Sometimes**	**Often**	**Always**
Q45	I am able to chat to my colleagues during working hours.	**Never**	**Sometimes**	**Often**	**Always**
Q46	I have enough contact with my colleagues during working hours.	**Never**	**Sometimes**	**Often**	**Always**
Q47	I need to be more secure that I will still be on the same job level in the next year.	**Never**	**Sometimes**	**Often**	**Always**
Q48	I need to be more secure that I will keep my current job in the next year.	**Never**	**Sometimes**	**Often**	**Always**

Q49	I need to be more secure that I will still be working for the company in the next year.	**Never**	**Sometimes**	**Often**	**Always**
Q50	My company pays good salaries	**Never**	**Sometimes**	**Often**	**Always**
Q51	I can live comfortably on my pay.	**Never**	**Sometimes**	**Often**	**Always**
Q52	I think I am paid enough for the work I do.	**Never**	**Sometimes**	**Often**	**Always**
Q53	My job offers me the possibility of progress financially.	**Never**	**Sometimes**	**Often**	**Always**
Q54	My company gives me opportunities to attend training courses.	**Never**	**Sometimes**	**Often**	**Always**
Q55	I have opportunities to be promoted.	**Never**	**Sometimes**	**Often**	**Always**

ANNEXURE E: UTRECHT WORK ENGAGEMENT SCALE (UWES-17)

SECTION 3:

The following section aims to ascertain the extent to which you experience significant levels of work engagement as characterised by vigour, dedication, and absorption:

Please read each question and indicate your response using the scale provided for each questions:

Q56	At work, I feel that I am bursting with energy.	**Never**	**Almost Never**	**Rarely**	**Some-times**	**Often**	**Very Often**	**Always**
Q57	At my job, I feel strong and vigorous.	**Never**	**Almost Never**	**Rarely**	**Some-times**	**Often**	**Very Often**	**Always**
Q58	When I get up in the morning, I feel like going to work.	**Never**	**Almost Never**	**Rarely**	**Some-times**	**Often**	**Very Often**	**Always**
Q59	I can continue working for very long periods of time.	**Never**	**Almost Never**	**Rarely**	**Some-times**	**Often**	**Very Often**	**Always**
Q60	At my job, I am very resilient mentally.	**Never**	**Almost Never**	**Rarely**	**Some-times**	**Often**	**Very Often**	**Always**
Q61	At my work I always persevere, even when things do not go well.	**Never**	**Almost Never**	**Rarely**	**Some-times**	**Often**	**Very Often**	**Always**
Q62	I find the work that I do full of meaning and purpose.	**Never**	**Almost Never**	**Rarely**	**Some-times**	**Often**	**Very Often**	**Always**
Q63	I am enthusiastic about my job.	**Never**	**Almost Never**	**Rarely**	**Some-times**	**Often**	**Very Often**	**Always**

Q64	My job inspires me.	**Never**	**Almost Never**	**Rarely**	**Some-times**	**Often**	**Very Often**	**Always**
Q65	I am proud of the work that I do.	**Never**	**Almost Never**	**Rarely**	**Some-times**	**Often**	**Very Often**	**Always**
Q66	To me, my job is challenging.	**Never**	**Almost Never**	**Rarely**	**Some-times**	**Often**	**Very Often**	**Always**
Q67	Time flies when I am working.	**Never**	**Almost Never**	**Rarely**	**Some-times**	**Often**	**Very Often**	**Always**
Q68	When I am working, I forget everything else around me.	**Never**	**Almost Never**	**Rarely**	**Some-times**	**Often**	**Very Often**	**Always**
Q69	I feel happy when I am working intensely.	**Never**	**Almost Never**	**Rarely**	**Some-times**	**Often**	**Very Often**	**Always**
Q70	I am immersed in my work.	**Never**	**Almost Never**	**Rarely**	**Some-times**	**Often**	**Very Often**	**Always**
Q71	I get carried away when I am working.	**Never**	**Almost Never**	**Rarely**	**Some-times**	**Often**	**Very Often**	**Always**
Q72	It is difficult to detach myself from my job.	**Never**	**Almost Never**	**Rarely**	**Some-times**	**Often**	**Very Often**	**Always**

ANNEXURE F: TURNOVER INTENTIONS SCALE (TIS)

SECTION 4:

The following section aims to ascertain the extent to which you intent to stay or leave your current organisation in the foreseeable future.

Please read each question and indicate your response using the scale provided for each questions:

Q73	I have often considered leaving my job.	**Never**	**Rarely**	**Sometimes**	**Often**	**Always**
Q74	I frequently scan newspapers in search of alternative job opportunities.	**Never**	**Rarely**	**Sometimes**	**Often**	**Always**
Q75	My current job is satisfying my personal needs.	**Never**	**Rarely**	**Sometimes**	**Often**	**Always**
Q76	I am often frustrated when not given the opportunity to achieve my personal work-related goals	**Never**	**Rarely**	**Sometimes**	**Often**	**Always**
Q77	My personal values are often compromised at work.	**Never**	**Rarely**	**Sometimes**	**Often**	**Always**
Q78	I often dream about getting another job that will suite my personal needs.	**Never**	**Rarely**	**Sometimes**	**Often**	**Always**
Q79	I am likely to accept another job at the same compensation level should it be offered to me.	**Never**	**Rarely**	**Sometimes**	**Often**	**Always**
Q80	I often look forward to another day at work.	**Never**	**Rarely**	**Sometimes**	**Often**	**Always**

Q81	I often think about starting my own business.	**Never**	**Rarely**	**Sometimes**	**Often**	**Always**
Q82	Other personal responsibilities prevent me from quitting my job.	**Never**	**Rarely**	**Sometimes**	**Often**	**Always**
Q83	The benefits associated with my current job prevent me from quitting my job.	**Never**	**Rarely**	**Sometimes**	**Often**	**Always**
Q84	I am frequently emotionally agitated when arriving home after work	**Never**	**Rarely**	**Sometimes**	**Often**	**Always**
Q85	My current job has a negative effect on my personal well-being.	**Never**	**Rarely**	**Sometimes**	**Often**	**Always**
Q86	The "fear of the unknown" prevents me from quitting by job.	**Never**	**Rarely**	**Sometimes**	**Often**	**Always**
Q87	I frequently can the Internet in search for alternative job opportunities	**Never**	**Rarely**	**Sometimes**	**Often**	**Always**

Thank you kindly for taking the time to complete the survey!