

**WORK-LIFE INTERFERENCE, PSYCHOLOGICAL CONDITIONS, WORK  
ENGAGEMENT AND TURNOVER INTENTION AT A URANIUM MINE IN  
NAMIBIA**

**A THESIS SUBMITTED IN PARTIAL FULFILMENT**

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## **ABSTRACT**

Psychologists have long been concerned with the well-being of people and how it can be achieved. There are various routes to well-being, for example, via pleasure, engagement, accomplishment and meaning. This study focuses on the second route to well-being, namely engagement in the work context, and specifically the relation thereof to work-life interference. Interference of employees' work with their home and home with work is an important factor impacting their work engagement. This is specifically evident when the work and home are far apart. The general objective of the study was to investigate the relationship between work-life interference, psychological conditions, employee engagement and turnover intention in a uranium mine in Namibia.

A quantitative study was conducted. More specifically a survey design was used. The participants were 292 employees of a uranium mine in the Namib Desert (in Namibia) residing in towns between 70 and 90 kilometres from their workplace. The following measuring instruments were used: Survey Work–Home Interference–Nijmegen, Psychological Conditions Scale, Work Engagement Questionnaire, and the Turnover Intention Scale. The statistical analysis was carried out with the SPSS 19.0 program. Exploratory factor analyses were used to assess the construct validity of the measuring instruments. The reliability of the measuring instruments was assessed by means of Cronbach alpha coefficients. Hierarchical multiple regression analyses were used to investigate the effects of work-life interference on employee engagement and turnover intention. Mediation analyses were used to determine indirect effects.

The results showed that there is a significant relationship between work-life interference and work engagement within the employees at the mine. Negative work-life interference (work-home/home-work spillover) was negatively related to psychological meaningfulness, psychological availability, and work engagement. The opposite was found regarding positive work-life interference (work-home/home-work spillover) as it was positively related to psychological meaningfulness, psychological availability, work engagement, and is negatively related to turnover intention. What was also apparent in the study is that psychological meaningfulness and psychological availability mediated the relationship between negative and positive interferences and work engagement, and turnover intention.

Recommendations for future research were made.

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## **DEDICATION**

This study is dedicated to all the people who believed in me. My parents, Sydney and Claudine Baumann, if it wasn't for the upbringing I have received, all of this would not be possible. My brothers and their wives; Alastair, Grant, Jennifer, and Tanya Baumann, and my sister and her husband; Chantal and Godwin Cloete, for always cheering me on every step of the way. My loving husband, Desmore Damens, for giving me the time to complete this study regardless of everything that we had to disregard. I love you all for the support that you gave me throughout and I could not have done this without you.

## DECLARATION

I, Candice Damens, declare hereby that this study is a true reflection of my own research and that this work or part thereof has not been submitted for a degree in any other institution of higher education.

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Candice Damens

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Date

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## **CHAPTER 1**

### **INTRODUCTION**

This thesis deals with the relationship between work-life balance, psychological conditions, work engagement, and turnover intention.

In this chapter, the problem statement is discussed. The research objectives are formulated and the research methodology is described. Finally, the division of chapters is given.

#### **1.1 ORIENTATION OF THE STUDY**

Psychologists have long been concerned with the well-being of people and how it can be achieved (Guignon, 1999). Well-being results in various positive outcomes, including superior attention, longevity, recovery from illnesses, and protecting people against the onset of diseases (Seligman, 2008). Well-being also contributes to better business results, improved interpersonal relationships, and more marital satisfaction (Seligman, 2004).

According to Peterson, Park, and Seligman (2005), there are three routes to well-being, namely pleasure, engagement and meaning. The first route to well-being is hedonic and entails the pursuit of pleasure. The second route to well-being is through pursuing gratification, which engages people fully in activities. The third route to well-being is to use strengths to belong to and in service of something larger than the

self, which give life meaning. Engagement and meaning as routes to well-being seem more under deliberate control of individuals than pleasure (Peterson et al., 2005). This study focuses more closely on the second route to well-being, namely engagement.

Work engagement defined as work-related states of mind which brings about positivity and fulfilment and is characterized by constructs such as vigour, dedication and absorption (Schaufeli, Salanova, Gonzalez-Roma, & Bakker, 2002). Various factors can impact on the engagement of employees. Rothmann and Rothmann (2010) point out that the personal engagement model of Kahn (1990), which focuses on engagement as an extension of the self, can be used to understand the factors associated with employee engagement. According to Kahn (1990), three psychological conditions affect an individual's engagement, namely psychological meaningfulness, psychological safety, and psychological availability. Psychological meaningfulness refers to a feeling that one is receiving a return on investment of one's self in a currency of physical, cognitive, or emotional energy (Kahn, 1990, p. 714). Psychological safety entails feeling able to show and employ one's self without fear of negative consequences to self-image, status, or career (Kahn, 1990, p. 708). Psychological availability is defined as "...the sense of having the physical, emotional or psychological resources to engage at a particular moment" (Kahn 1990, p. 703-704). It indicates whether the individual is ready or confident to engage in his/her work role given the fact that people are also engaged in many other life activities.

Factors in the work context which contribute to psychological meaningfulness, include work role fit and good co-worker relations. Supervisory and co-worker relations that are supportive, trustworthy as well as flexible with regard to the behavioural norms lead to feelings of psychological safety. A study done by Hakansson, Dahlin-Ivanhoff, and Sonn (2006), reported that women with stress related disorders found a sense of balance/well-being when their daily activities was meaningful and when it created a positive self-image, and also when the strategised with regards to managing their daily lives. Matuska and Christiansen (2008) hold the belief "...that in pursuing meaningful lifestyles and creating a positive identity, people engage in an array of occupations, some of which are related to understanding of their situations at the moment and others pertaining to evaluating purpose in their lives over the longer course."

Factors that may influence psychological availability include the individual's resources, work role insecurities and outside activities (May, Gilson, & Harter, 2004; Rothmann & Rothmann, 2010). While work-life balance is an important factor which impacts on psychological availability and work engagement, no research has been done regarding this topic in the African context.

Greenhaus and Beutell (1985, p. 77) define work-family conflict as "a form of inter-role conflict in which role pressures from the work and family domains are mutually incompatible." However, this definition does not specify that the interaction between work and home can also be positive. A study done by Geurts, Taris, Kompier, Dijkers, Van Hoof and Kinnunen (2005), found a four-dimensional structure of work-home interactions, consisting of positive work-home interference (good/fair

working environment), negative work-home interference (poor salary and working environment), positive home-work interference (emotional support from family), and negative home-work interference (no support from family). This means that if a person loves his/her job and there's no support from his/her family it may cause a negative home/work spillover, but if the family supports his/her it could result in a positive home/work spillover. The same is true for work/home spillover. A negative work/home spillover could be caused by a bad working environment and a positive work/home spillover could be due to good and fair relations at work.

Geurts et al. (2005) distinguish between two concepts, namely role scarcity and role enhancement which can be studied to unravel work-home, and home-work interferences/conflict. Role scarcity refers to work-home interference/conflict as “a form of inter-role conflict in which role pressures from the work and family domains are mutually incompatible in some respect” (Geurts et al., 2005, p. 320). It is hard to juggle multiple roles (partner, father, and employee) in limited time and energy. Role enhancement implies that fulfilling multiple roles may produce resources (e.g. energy mobilisation, skill acquisition, greater self-esteem) that facilitate functioning in both life spheres (Geurts et al., 2005, p. 320). This could mean by balancing both life and work in a sufficient manner, could spare a person a lot of energy, help one acquire optimal skills in both domains and in turn feel more in charge of the situation.

Lingard, Brown, Bradley, Bailey, and Townsend (2007) found that a work-life conflict has damaging effects on various domains both individually and had a negative impact on the overall production and as a result on profits as well. Work-



life conflict has negative effects on job satisfaction, turnover, and absenteeism which tap into damaging the bottom-line. Individual effects include burnout, mental health issues, substance abuse, and diminished family functioning (Lingard et al., 2007). Williams, Franche, Ibrahim, Mustard, and Layton (2006) studied the relationship between work-family spillover, job characteristics, and sleep quality. They found that “positive family-to-work spillover is associated with better sleep quality, after controlling for age, physical health, depressive symptomatology, work situation, and number of children” (Williams et al., 2006, p. 27).

According to May et al. (2004), activities outside the workplace could draw away individuals’ energies from their work and make them less psychologically available for their work roles. These activities and the time demands associated with them are likely to distract an individual’s attention so that he/she is unable to be available to focus on his/her role tasks. Edwards and Rothbard (2000) refer to such a perspective as a resource drain perspective where they argue that attitudes, behaviours, and emotions may spillover to another. Conversely, in a study of family and work engagement, Rothbard (2001) later found that family engagement can have positive effects on work engagement for women. Such an enrichment effect reinforces the benefits of multiple role involvement which may lead to energy expansion (Rothbard, 2001).

## **1.2 PROBLEM STATEMENT**

No relevant literature regarding work-life interference and employee engagement was found pertaining to the mining sector of Namibia which is the biggest sector in

the whole of Namibia's economy. The mining sector is as a result an employer of a large number of employees which make it such a significant area to explore relating to the study at hand. People often seek employment at mines as they know that salaries, fringe benefits, and nature of the work are promising and once they are appointed the chances of turnover are small. But these are not the only factors that would keep them engaged. Work-life interference might impact on employees' engagement (Kahn, 1990; May et al., 2004).

The Rössing Uranium Mine is one of the largest open pit uranium mines in the world. The mine, which is located in in the Namib Desert, started operations in 1976 and is the fifth-largest uranium mine with 8% of global output. The mine is situated about 15 km from Arandis, a small town which is mostly occupied by mine workers. Arandis does not have space to accommodate all the people that work at the mine. A total of 76% the mineworkers live in two towns namely, Walvis Bay, Swakopmund. Swakopmund is about 70 kilometres from the mine, while Walvis Bay is about 100 kilometres from the mine. Swakopmund and Walvis Bay have relatively good infrastructure (e.g. schools, housing, and shopping centres), while Arandis lacks the infrastructure to accommodate all employees and provide them with facilities to allow for quality of life. Seeing that work has to start at 8 a.m. people from Walvis Bay and Swakopmund have to leave for work early in the mornings. Walvis Bay's people have to wait at the bus stop at six o' clock in the morning and Swakopmund's residents need to be at their bus stops at a quarter to seven in the morning. Workers leave early in the morning by bus and arrive at home in the evenings when it is already dark.

Due to the distance from home to work and the required work schedule, there is clearly interference in terms of the personal hours lost to employees due to travel time to and from the job. Parents who work at the mine are not close to the towns where they stay. Therefore, when problems arise with their children, they are not in a position to help them. For instance, mothers who work at the mine may not be able to leave their work to attend to the needs of their children. Another form of interference is that some employees and their families live close to their work in a relatively closed community where there is basically no entertainment and only the very basic necessities at the local shops. Thus, these employees need to travel to the nearest town called Swakopmund, in order for them to do proper clothing and grocery shopping.

According to Rothmann and Rothmann (2010), work-life interference, whether positive or negative, will impact on employees' engagement. Research regarding the relationship between (positive and negative) work-life interference and employee engagement is necessary. Ultimately, one could find out what the effects of work-life interference (positive and negative) are on the possible contributors; psychological meaningfulness, psychological availability, psychological safety, and in turn on engagement and turnover intention.

Pertaining to the above mentioned arguments and facts, there are a few problems that came into view. Work engagement, psychological conditions, and work-life interference as well as the relationship between these constructs have not yet been studied with regards to the employees working for the uranium mine which is the focus of this study. It is unclear what the relationships between work/home and

home/work interference, psychological conditions and work engagement, and turnover intention of the employees at the uranium mine are. The information gathered in this study will result in the implementation of interventions to manage the work/life balance and work engagement of employees. Moreover, looking at the mining sector in Namibia, limited relevant research has been conducted on this crucial topic.

The research question is as follows:

What are the effects of work-life interference on the psychological conditions, work engagement, and turnover intention of employees?

### **1.3 STUDY OBJECTIVES**

The general objective of the study is to investigate the relationship between work-life interference, psychological conditions, employee engagement and turnover intention in a uranium mine in Namibia.

The specific objectives of the study are as follows:

- To conceptualise work-life interference, psychological conditions, work engagement, and turnover intention as well as the relationships between these factors from the literature.
- To study the relationships between work-life interference, psychological conditions and work engagement, and turnover intention of employees at a uranium mine in Namibia.

- To determine whether work-life interference predict the psychological availability, safety, meaningfulness, work engagement, and turnover intention of employees at a uranium mine in Namibia.
- To assess whether psychological conditions mediate the relationships between work-life interference and employee engagement at a uranium mine in Namibia.

#### **1.4 SIGNIFICANCE OF THE STUDY**

Instead of solely focusing on financial matters of support from the organisation, the study could also give guidance as to what other assistance can be offered to increase employees' engagement in relation to work-life balance. The study is necessary to focus the attention on subjective well-being by studying the relationship between work-life balance, work engagement, and turnover intention in order to have a better view on how to create a healthier working environment which could in turn spillover to an overall increase the productivity the company. Due to the importance of the mining sector in Namibia's economy, the findings of this study could be used towards enhancing positive effects on the country's economy as a whole.

#### **1.5 LIMITATIONS OF THE STUDY**

The limitations that one can foresee are that the study does not include the entire mining sector of Namibia, but rather focuses on one specific mining company. Another limitation is related to reliability and validity, as in such a diverse country as Namibia, within one specific company there exists a diverse workforce, made up of

many cultures, norms and belief systems. Therefore, creating culturally-specific questionnaires is difficult.

## **1.6 RESEARCH ETHICS**

The researcher ensured that the research complied to ethical practice by ensuring the following:

- The true purpose of the study was clearly stipulated.
- Information as to what participants can expect in the research was communicated.
- The amount of time that each participant had to spend on the research was communicated truthfully and strictly adhered to.
- The risks and benefits of the research were stipulated.
- Participants were not forced to partake of the study and they were informed to withdraw from the research without any detrimental results to them.
- Participants were informed of their right for confidentiality and anonymity if they so wish and the researcher honoured those promises.
- That the research would not be harmful or have negative effects on the participants.

## **1.7 CHAPTER SUMMARY**

This chapter discussed the problem statement, research objectives and research ethics. Chapter 2 focuses on the literature regarding work engagement and work-life balance.

## **CHAPTER 2**

### **LITERATURE REVIEW**

In this chapter work engagement and work-life balance is discussed. Firstly, work engagement is discussed with regards to its definition and its relation to other concepts, the importance of work engagement is scrutinised; the antecedents of work engagement is examined, and then finally the outcomes of work engagement are investigated. Secondly, work-life balance and its related constructs are defined; why work-life balance occurs is expressed and also how it can be attained; the theories behind work-life balance are investigated; the benefits of work-life balance are discussed. Lastly, the relationship between work-life balance, work engagement and turnover intention is discussed.

#### **2.1 THE WORK ENGAGEMENT MODEL**

Kahn (1990, p. 694) defines personal engagement as bringing in one's personal selves to one's work-role performance. Personal engagement is defined by Simpson (2008, p. 13), as physically, cognitively, and emotionally employing or articulating oneself during work role performances. When engaged, an employee is understood to be physically drawn in, cognitively alert, and emotionally attached.

Work engagement is also defined as work-related states of mind which brings about positivity and fulfilment and is characterized by constructs such as vigour, dedication and absorption (Schaufeli, Salanova, Gonzalez-Roma, & Bakker, 2002).

Work engagement consists of physical, emotional and cognitive components. The first component is the physical component, which is defined as having high levels of energy and mental flexibility while working, being willing to put extra effort into one's work, as well as to persist even when difficulties arise (Schaufeli et al., 2002, p. 74). The second component is the emotional component, defined as having a strong involvement with one's work and also when one experiences a sense of worth, interest, motivation, self-importance, and challenge (Schaufeli et al., 2002, p.74). The third component is the cognitive component, defined as being completely focused and being contently immersed in one's work, but as time draws nearer to leave one's work until the next day, it becomes difficult to disconnect from the work (Schaufeli et al., 2002, p.74).

Rather than a short-lived and exact state, engagement refers to a more constant and comprehensive affective-cognitive state that is not focused on any particular object, event, individual, or behaviour (Schaufeli et al., 2002, p. 74). Csikszentmihalyi (1991) did a study on overall reading ability and depicted that engaged reading is a state of sheer absorption or flow. This finding could be directly interpreted in a work setting as well. This means that if an employee is utterly absorbed in his/her work, that employee has reached a state of engagement.

Engagement has been widely used interchangeably with a few related constructs such as motivation, workaholism, job involvement, and flow as well as compared with other constructs such as burnout. In this section one will draw clear lines between the following construct.



A study done by Schaufeli and Bakker (2004) showed that engagement and burnout are opposite but related constructs with regards to their relationships and outcomes of other constructs such as job demands and job resources. Engagement is actually the positive counterpart of the very negative concept of burnout. According to Schaufeli and Bakker (2004), burnout is metaphorically known as being in a state of mental exhaustion. The Maslach Burnout Inventory General Survey (MBI-GS) is the tool used to measure burnout and taps into dimensions such as exhaustion, cynicism and professional efficacy. The symptoms indicative of burnout when using the MBI-GS are, “high scores on exhaustion and cynicism, and low scores on professional efficacy” (Schaufeli & Bakker 2004, p. 294).

On the positive side of burnout is engagement as explained previously. According to Maslach and Leiter (1997), the MBI-GS measures engagement on three opposite dimension which are; Energy, Involvement and Efficacy by using the opposite scores of the tools dimensions. This means the opposite of burnout is true for engagement in terms of the MBI-GS as, low scores for exhaustion and cynicism and high scores for professional efficacy, is symptomatic of engagement. Burnout in this instance according to Maslach and Leiter (1997, p. 24) basically corrodes engagement in the sense that, “Energy turns into exhaustion, involvement turns into cynicism, and efficacy turns into ineffectiveness.” From all these previous arguments one can automatically conclude that these two constructs, engagement and burnout, are two complete opposite constructs, with regards to their respective sub-constructs.

Motivation and engagement is often times used interchangeably which should not be the case as these two constructs are in essence two different constructs. In order for

one to be repulsed from or attracted to something, a motivational force needs to be present, whereby the strength of engagement fuels the intensity of such a motivational force (Higgins, 2006). Typically what Higgins was trying to bring across was that engagement, be it low or high, brings about the level of motivation a particular person would be having. As a result one can deduce from this statement that engagement is essential in determining the level of motivation which means that motivational force is reliant on engagement. So, this means that engagement and motivation are two totally different constructs and cannot be used interchangeably as similar concepts.

Workaholism is normally mistaken for engagement but is really not the same thing. Engagement- As described previously, is when the Psychological conditions are present in a person's work performance; workaholism is a syndrome that hinders other areas of life. Engaged people do not consider their work the primary priority of their life but when they do their work they are psychologically available, they find it psychologically meaningful, and they feel psychologically safe in their work performance. Workaholics do not necessarily engage the same way to their jobs as they take their work with them wherever they go (mentally and physically) which makes it hard for other areas of life to flourish.

Job involvement is one of the constructs that is very closely related to engagement according to Brown (1996). Job involvement is identified as the extent to which the job's circumstances are fundamental to the person and his/her character or personality (Lawler & Hall, 1970, p. 310-311). "Job involvement is thought to depend on both need salience and the potential of a job to satisfy these needs." (May

et al., 2004, p. 12) One's identity is very closely linked to one's job (May et al., 2004).

Engagement is more concerned with how one employs oneself while performing a task. Furthermore, in addition to cognitions which are core in job involvement, engagement also entails the dynamic use of emotions and behaviours. Engagement may be thought of as an antecedent to job involvement in that individuals who experience deep engagement in their roles should come to identify with their jobs" (May et al., 2004, p. 12).

Flow (Csikszentmihalyi, 1990), is another construct which can be said to be in very close association with engagement. Flow is defined as the holistic sensation that an individual feels when he/she acts with total involvement (Csikszentmihalyi, 1975, p. 36). Individuals that are in a state of flow need little conscious control for their actions. (May et al., 2004) Individuals can become so involved in an activity that they lose some sense of consciousness about their 'selves' (May et al., 2004). The fact that individuals in a state of flow find their activities at hand as constantly challenging, they need no external rewards or goals to inspire them (May et al., 2004, p. 12). Studies of flow at work reveal that managers and supervisors tend to experience more flow than clerical or blue-collar workers (Csikszentmihalyi, 1990). According to Kahn (1990), engagement and flow both have self-employment reinforcements but flow have been said to focus only on the cognitive domain with regards to an activity based on the measurements and studies of flow as well as the fact that one reaches a peak state of total cognitive absorption. However on the one hand, Kahn (1990) argued that individuals differ in the way they present themselves

to an activity whilst on the other hand he unequivocally argued that individuals employ all aspects of themselves; physically, emotionally, cognitively, into their roles. Thus, engagement in work is facilitated through the expression of emotions at work and this in turn makes relationships with co-workers more meaningful (Kahn, 1990; Waldron, 1994). Engagement also entails the physical energies employed by individuals to accomplish their roles. Such energies help bring the self into a role (May et al., 2004, p. 13).

Engagement stems fundamentally from a concept called happiness. The concept of happiness comes from the discipline of positive psychology (Seligman, 2003). Seligman (2008) suggests that happiness results in various positive outcomes, including superior attention, longevity, recovery from illnesses, and protecting people against the onset of diseases. In addition, happy people are more productive, have higher self-esteem, and are generally more satisfied with life (De Neve & Cooper, 1998).

Organisations may benefit from their employees being more engaged at work in a number of ways. When employees are engaged in their jobs it means that they will present a better service to the clients of the organisation and this will in turn mean that the organization will be much more profitable. A study was done by Harter, Schmidt, and Hayes (2002, p. 276), and they found that when employees are satisfied and engaged in their job situation, they contribute to the positive and meaningful outcomes of a business to the extent that it is important to many organizations. These outcomes may be generalised across companies.

The focus of this study is on the individual and how engagement is important to them. Engaged individuals will feel a sense of feeling secure in their jobs, they will be much more available to perform their jobs, and they would feel more they would find meaning in performing their jobs. These feelings may cause spillover to the family domain and other areas of the individual's life. This means that it is likely that if one feels engaged at work it might spillover to other domains of an individual's life. Since engagement is a construct of happiness one of the constructs of happiness one can conclude from Seligman (2008) that engaged individuals have increased levels of health, decreased levels of stress, and in general they will be much more content with life than the disengaged individual.

When employees feel a sense of engagement in their work, it can lead to them having the perception that they benefit from their jobs (Britt, Adler, & Bartone, 2001).

As defined by Kahn (1990, p, 694) "...personal engagement is the harnessing of organization members' selves to their work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performance." Moreover, engagement is when the expressing of a person's self in task performance is synchronised with the associations with work and with their colleagues and superiors (Rothmann & Rothmann, 2010).

Kahn's theory of personal engagement is in close relation to three psychological conditions affecting the state of engagement. The three psychological conditions are

known as psychological meaningfulness, psychological safety, and psychological availability.

Psychological meaningfulness, as stated by Simpson (2008), is when individuals feel a kind of return on investment when performing their work role. Meaningfulness is defined here as the value of a work goal or purpose, judged in relation to an individual's own ideals or standards (Hackman & Oldham, 1980; May, 2003; Renn & Vandenberg, 1995). People are willing to engage in activities that are personally meaningful (May et al., 2004). As previously mentioned in the study, women with stress-related conditions, feel more balanced in their lives when there is meaning in their everyday activities, when it portrays a positive self-image, and also when they have more control over their daily activities in terms of planning their everyday lives strategically (Hakansson et al., 2006). In this regard meaning and work-life balance is actually very closely linked.

The antecedents of psychological meaningfulness that are identified by Simpson (2008) are identified as tasks, roles, and work interactions (Simpson 2008, p. 8). More closely, job enrichment, work-role fit and co-worker relations have been theorized to influence psychological meaningfulness.

- **Job enrichment.** Based on the research done by Kahn (1990), which maintains that the degree to which an employee experiences meaning in their jobs may be influenced by the characteristics of their jobs, and the recent research on job design done (Johns, Xie, & Fang, 1992; May, 2003; Renn & Vandenberg, 1995) which stipulates that meaningfulness in work can be achieved by the enrichment of jobs through the characteristics of one's job, one can conclude that

psychological meaningfulness is positively related to job enrichment (May et al., 2004).

- **Work-role fit.** Some researchers have found in their studies that when an individual can express his/her values and beliefs, it will create a sense of meaning in their work with regards to a perceived 'fit' between an individual's self-concept and his/her role at work (Brief & Nord, 1990; Shamir, 1991). Recent and past related studies done by May (2003) and Britt (1999) also fundamentally found that a work-role fit played a major role in the influence of meaningfulness at the workplace. Taken into account the research that has been done, one can conclude that when an individual's values and beliefs are in line with their work duties and roles it should be considered that such individuals would experience more meaning at work.
- **Co-worker relations.** Meaningfulness from their interactions is likely to be perceived by individuals when they are treated with the majesty, respect and value for their contributions, which they deserve, and not just as some employee occupying a specific job (May 2004, p. 15).

When one can employ oneself to one's job without fear of negative outcomes to one's self-image or status is called psychological safety (Simpson, 2008, p. 8). Supportive and trustworthy supervisory and co-worker behaviours are likely to produce feelings of safety at work (May et al., 2004, p. 16). "...psychological safety should lead to engagement at work because it reflects one's belief that s/he

can employ his/herself without fear of negative consequences” (May et al., 2004, p. 19).

Interpersonal relationships, group and intergroup dynamics, management styles and organizational norms are identified as antecedents of psychological safety (Simpson, 2008, p. 8). The factors that influence psychological safety is supervisory relations, co-worker relations and behavioural norms (May et al., 2004, p. 16)

- **Supervisor relations.** With regards to previous studies done by various researchers (Deci, Connell, & Ryan 1989; Edmondson, 1999; Mayer & McAllister, 1995; Oldham & Cummings 1986) lead to the conclusion that individuals will feel a sense of psychological safety and a willingness to devote themselves at work if they experience a sense of trustworthy supervisory behaviour (May et al., 2004)
- **Co-worker relations.** Kahn (1990) maintained that supportive and trusting interpersonal relations should also foster psychological safety. Co-worker norms- Group-norms and that of the organisation as a whole may be said to be the governing body of behaviour, attitudes, and emotional elements at work according to Hochschild (1983). Individuals may feel less psychological safety in teams as they feel they have to follow normative rules to govern their behaviour as opposed to being more flexible with regards to their behaviours (May et al., 2004, p. 17).



When individuals have the physical, psychological and emotional resources needed to devote themselves to their jobs is known as psychological availability (Simpson, 2008, p. 8). "...individuals must believe that they have the necessary physical, emotional, and cognitive resources in order to immerse themselves in their roles. Individuals should be more willing to engage themselves in their role if, they are confident that they have the energy to do so" (May et al., 2004, p. 19). Physical energies, emotional energies, insecurities, and the outside life are identified as antecedents of psychological availability. More specific, factors that may influence psychological availability include the individual's resources, work role insecurities and outside activities (May et al., 2004, p. 18).

- **Resources.** In terms of Kahn's model of engagement, an individual engages in work on a cognitive, physical, and emotional level. Thus, the availability of these resources within an individual plays a major role in being psychologically available. In summary, a greater sense of availability and engagement will arise in the presence of physical, emotional, and cognitive resources (May et al., 2004, p. 18).
- **Work-role security.** Taking into account the studies done by various researchers (Fenigstein, Scheier, & Buss, 1975; Goffman 1959; Kahn, 1990; Schlenker, 1980) one can summarize that, at work some individuals tend to become overly occupied with external judgements so much so that they become self-conscious about what others may say or think that they mould themselves to fit into what is expected from the social environment. This can be seen as a distraction as individuals forget to focus on themselves and their self-concepts.

- **Outside activities.** According to Hall and Richter (1989) Individual's energies at work may be strained by outside activities which will in turn make them less psychologically available in their work roles. Conversely, Rothbard (2001) found in his recent study that, work engagement can be influenced on a positive level by family engagement for women.

Other important factors of work engagement in the view of Bakker, Schaufeli, Leiter, and Taris (2008) include, job resources and personal resources. This stipulates that engagement can be studied on the basis of an experience of work activity. Hence, in order to study the factors related to engagement the Job-Demands resources (JD-R) model (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001; Hakanen, Schaufeli, & Ahola, 2008), and the Conservation of Resources (COR) theory (Hobfoll, 1989, 1998) were utilised.

The JD-R model presumes that in addition to the particular job descriptions for each occupation with regards to well-being, the model characterises two broad characteristics, namely job demands and job resources (Demerouti et al., 2001). Job demands refer to aspects such as the physical, psychological, social, or organisational features of a job that may need constant physical and/or psychological effort, and that are in turn related to various physiological and /or psychological outcomes/disadvantages (Rothmann & Rothmann, 2010).

Job resources refer to the physical, social, and organizational aspects of the job that may, reduce job demands and the associated physiological and psychological costs;

be functional in achieving work goals; and stimulate personal growth, learning, and development (Bakker & Demerouti, 2007; Schaufeli & Salanova, 2007). On an organisational level job resources may be looked at with regards to salaries, career opportunities, and job security. On an interpersonal and social relations level job examples of job resources may be supervisor support, co-worker support, and team climate. When one looks at the organisation of work the job resources needed would likely be role clarity and participation in decision making. The level of the task would necessitate job resources like performance feedback, skill variety, task significance, task identity, and autonomy.

In various studies, be it cross-sectional (Hakanen, Bakker, & Schaufeli, 2006; Koyuncu, Burke, & Fiksenbaum, 2006; Llorens, Bakker, Schaufeli, & Salanova, 2006; Schaufeli & Bakker, 2004) or longitudinal (Mauno, Kinnunen, & Ruokolainen, 2007) it was found that there exists a positive relationship between work engagement and job resources. More specifically, work engagement was positively associated with job resources such as social support from colleagues and supervisors, performance feedback, skill variety, autonomy, and learning opportunities (Bakker & Demerouti, 2007; Schaufeli & Salanova, 2007).

A questionnaire was developed by Rothmann, Strydom, and Mostert (2006), in order to identify job demands and job resources according to the JD-R model, whereby they found that these two concepts consists of five factors. These are conceptualized as overload, job insecurity, growth opportunities, advancement, and organizational support. A definition of each of the five factors will be discussed:

- The amount of work, mental load, and emotional load is defined as overload.
- Job insecurity means when one lacks confidence in the existing job and rank thereof in terms of the future.
- Having enough variety, opportunities to learn and develop, and independence refers to growth opportunities.
- When an organization progresses their employees in terms of remuneration, training, and career opportunities is known as advancement.
- The relationship with the supervisor, the availability of information, communication, participation, social support by colleagues, and contact opportunities within the organization is referred to as organizational support (Rothmann & Rothmann, 2010).

Job resources play either an intrinsic motivational role (by developing employees in terms of training) or extrinsic motivational role (by productively performing a task and reaching the goals). To fulfil the intrinsic basic needs of employees with regards to job resources the organisation needs to provide the employee with autonomy, competence, and relatedness in order for the employee to feel motivated (Ryan & Deci, 2000, 2001). Competence levels increases when an organisation portrays growth opportunities and organisational support as these factors enhances learning ability and willingness to learn (Rothmann & Rothmann, 2010). An environment that fosters social support by the supervisor and colleagues may fulfil the need for relatedness in employees. The extrinsic motivational role of job resources is perceived by employees when resources such as organisational support, growth opportunities, and advancement are encouraged as employees will work harder toward the attainment of their specific goals. According to Bakker et al. (2008),

when needs are satisfied and goals are achieved it is likely that engagement will occur.

In order to understand the effects of job resources or the lack of job resources on employees the COR theory by Hobfoll (1989, 1998) is utilised. The COR theory fundamentally stipulates that people seek to acquire, preserve, and protect things that are valuable to them.

Engaged workers possess personal resources, including optimism, self-efficacy, self-esteem, resilience, and an active coping style, that help them to control and impact upon their work environment successfully, and to achieve career success (Bakker & Demerouti, 2008, p. 214). When the external environment has a shortage of resources, individuals may be unable to decrease the possibly negative pressure of high job demands, attain their work objectives, and learn in terms of development (Rothmann & Rothmann, 2010). A loss of resources will be experienced or a not being able to gain an investment by employees in such a situation as envisaged by the COR theory (Hobfoll, 1989). The reduction of losses will be attempted by individuals in order to decrease job stress (Rothmann & Rothmann, 2010). To enable an equal balance without experiencing negative personal outcomes, individuals will possibly decrease their discretionary inputs (Rothmann & Rothmann, 2010). Individuals will be more engaged, when the job demands are low and they have the required resources to perform their jobs and manage the demands that arise (Saks, 2008).

Pertaining to the above explained psychological conditions, Greenhaus et al. (2003) came up with the following definition of work-family balance with regards to engagement: “the extent to which an individual is equally engaged in-and equally satisfied with-his or her work role and family role” (Greenhaus et al., 2003, p. 513). This definition pertains to both the positive and negative spillover from each domain. Ultimately, this means that an optimum work-life balance can be attained if and when an individual feels a sense of meaning, availability, and safety in his/her family as well work domain on an equal level.

## **2.2 THE WORK-LIFE BALANCE MODEL**

There have been many interpretations made by various schools of thought in relation to the work/non-work interface, whereby an expanded array of themes were discussed (Schabracq et al., 2003). For example; time schedule conflicts, household and caregiving responsibilities, marital conflict, children's development problems, and even community involvement. Work on the other hand is activity that one gets paid for in relation to the substance it construes.

The term work is defined as performing a set of tasks and outputs with regards to a specific role that an individual occupies in an organisation. Non-work on the other hand is defined as the roles and responsibilities outside the work domain which may refer to the family domain, as well as to roles and responsibilities beyond one's own family (Schabracq et al., 2003).

Essentially, work-life balance refers to the relationship between the institutional and cultural times and spaces of work and non-work in societies where income is predominantly generated and distributed through labour markets (Bratton & Gold, 2003, p. 105). In short, work-life balance is seeking to obtain an optimal balance between one's work and one's life in general.

Work-family conflict was defined as a form of inter-role disagreement in which the role strain from the work and family domains are equally incompatible in some respect (Greenhouse & Beutell, 1985). There are three forms of work-family conflict namely, time-based conflict, strain-based conflict, and behaviour-based conflict.

Time-based conflict, refers to the demands from one domain, which is associated with the accomplishment of one role, that make it physically impossible to meet demands from the other domain, or be preoccupied with one role while attempting to fulfil the demands of another role (Bartolome & Evans, 1979). For example, when the pressure of one's job is of such nature that one has to work late in order to meet deadlines will make it impossible to pull one's weight at home or at the sports field.

Strain-based conflict, refers to strain (e.g., tension, anxiety, fatigue, depression, irritability) caused by the contribution in one domain (role) that makes it complicated to meet the terms of the other domain (another role). For example, when one comes home from work, one feels tired and stressed which makes it harder to do what is expected at home.

Behaviour-based conflict refers to particular forms of role behaviour that is in contrast with the prospects with regards to behaviour in another role. Contrary to the

role strain hypothesis, other theories suggest that when one's skills are developed at work to optimally utilise one's energies, it might just enhance one's productiveness in non-work domain. This process is referred to as positive spillover or role enhancement (Grzywacs & Marks, 2000). In the maintaining of a work-life balance, there might be some positive outcome in terms of work circumstances may benefit non-work circumstances and the other way around.

A study done by Crouter (1984), demonstrates such positive spillover. It was found that training on decision making skills at work used the newly learnt tactics at home as well in order to more efficiently deal with their children. Also empirical studies from a range of samples show that when one gets support from one's spouse and have the platform at home to discuss work issues enables one to better manage the pressures at work (Gattiker & Larwood, 1990; Weiss, 1990). Varying sources persistently reveal that employed married mothers feel greater sense of happiness and better physical health as opposed to unemployed married mothers or employed singles without children (Schabracq et al., 2003). A recent study was done by Grzywacs and Marks (2000), from the perspective of *ecological systems* theory on the concept of work-family interface. The researchers found that ecological resources at work like decision-latitude, support from co-workers and supervisors, as well as ecological resources at home like support from one's spouse, would be associated with lower levels of negative spillover and higher levels of positive spillover between work and family. On the contrary ecological barriers at work like, pressure at work as well as ecological barriers at home like, disagreement with one's spouse or family criticism, would be associated with higher levels of negative spillover and lower levels of positive spillover between work and family (Schabracq et al., 2003,



p. 288). For example; if one is happy with the working conditions as well as having adequate support at home higher levels of spillover to both domains, i.e. a desired situation in general. The opposite applies for undesirable conditions in both domains of life whereby when one may experience low commitment from supervisor as well as at home, high levels of negative spillover will occur at home and work.

An extension to the study done by Grzywacs and Marks (2002), explain that one can further construe that there can be a positive as well as negative spillover from work to family as well as from family to work.

Example of respective situations:

- Positive spillover from work to family- a mathematics teacher may transfer his knowledge to his kids or an electrician may fix all the electrical problems at home/when one had a good day at work one may come home with that happy mood and make everyone jovial at home.
- Negative spillover from work to family would be when one comes home with a bad mood because of conflict situations at work or not getting enough pay to support the family sufficiently.
- Positive spillover from family to work- when your family support you and loves you unconditionally one will be a good performer and be much more productive at work. Negative spillover from family to work-when your family or spouse does not support you and does show appreciation one would be unproductive at work.

Spillover is one of the six recurring linking mechanisms depicted by Rothbard and Edwards (2000), in the work-life literature. The other five mechanisms are: compensation, segmentation, resource drain, congruence, and work-family conflict. From all these mechanisms, spillover, compensation, and segmentation have been known to be the most dominant models characterizing the linkage between work and non-work roles. Spillover has been explained previously so compensation and segmentation will be clarified:

Compensation refers to a non-work and work relationship where individuals somewhat over-involve themselves in one role to make up for deficiencies in another role (Champoux, 1978; Edwards & Rothbard, 2000; Lambert, 1990; Zedeck, 1992), and this in turn allows for a negative relationship between constructs in the two roles (Edwards & Rothbard, 2000). An example or evidence of compensation is shown in a recent study done by Rothbard (2001), where he found that women who experienced negative affect from family were more engaged at work.

Segmentation is different from spillover and compensation in that it speculates no logical relationship between work and non-work roles (Edwards & Rothbard, 2000). As a matter of fact, the segmentation model describes the non-association of the two roles in that work and family do not influence one another (Edwards & Rothbard, 2000; Staines, 1980; Zedeck, 1992). Other studies have reconceptualised segmentation as an active psychological process which means that when it comes to work and family people may choose to uphold a boundary between the two roles (Eckenrode & Gore, 1990; Lambert, 1990; Morf, 1989; Near, 1984).

A study done by Higgins, Duxbury, and Johnson (2000), on the work-to-family interference on part-time work for career and non-career women and they found that for both career and non-career (earner type positions) women, part-time work was associated with lower family-to-work interference, better time-management ability, and greater life-satisfaction.

Work-life balance is increasingly an issue, because, according to The Department of Labour, more women and single parents go into work; many people have more than one job; the workforce is growing older; businesses continue to compete globally to hire skilled workers; technology changes the way we work e.g. mobile phones and PCs disguise the distinction between work and personal time; many people have to deal with time pressure and a shrinking workplace.

The employee benefits from work-life balance. There are many factors that improve, like (Vleems, 2005, p. 12-13):

- the employees' happiness: this will be better at work as well as at home. 43 % of companies say that most advantages come from the happier staff. This brings along a great benefit;
- the relations with the management: a good relationship between the workforce and the management is important if you want to adopt a good communication within the company;
- the employees' self-esteem, health, concentration and confidence: of course these are all important factors if you want productivity to increase;

- loyalty and commitment: these are two factors that are not much mentioned these days when we're talking about companies. We all know that people are less committed these days to the company. When you started to work for a company 20 years ago, you had the intention to stay here for the rest of your life. Nowadays, employees change companies every two years and are not that loyal and committed. But you see that this can increase again when you introduce work-life balance opportunities:
- the fact that the employee will no longer bring family problems to work and visa versa: this is a benefit that does not apply to everyone. Not every employee brings family problems to work and vice versa, but it indeed occurs. When this happens, you should be professional enough to separate work and these problems, but that's sometimes easier said than done. When work-life balance possibilities are around, this will not be something to worry about;
- the time to focus on life outside work: this is of course why people want to benefit from work-life balance. They spend so much time to their work that they sometimes forget that you do not live to work, but you work to live;
- the control of their working lives; employees feel that when their life is in balance, that they are working easier and more controlled. They can manage their tasks better;
- the motivation of the staff: when people are happy, there are several factors that improve and one of them is motivation. So when people like to work, because they feel fulfilled through work-life balance policies, they will be more motivated to work;

- the level of stress among employees: employees who found the right balance between work and life, don't have to worry about stress, because there is nothing to stress about;
- the sense of ownership and responsibility: employees wish to have more ownership, because they feel better and feel they can handle it.

The employee is not the only one that will benefit from having a work-life balance but also the employer and this is how: also highlighted that not only does the employee benefit from having a work-life balance but also the employer and this is how (Vleems, 2005, p. 13):

- maximised available labour: the workforce will be very motivated and so the employer can benefit from maximised available labour. Every single employee will give all they've got during the working hours;
- the balance makes employees feel valuable; when they feel like they have something to say in the company, like their opinion matters, they will feel more valuable and as a result, they will work harder;
- the workforce will be more loyal and motivated;
- the environment will be less stressful;
- by applying work-life balance policies, a wider range of candidates will be attracted: when a company indicates that it has a good policy of work-life balance opportunities, people will hear from it and apply for a job. Every person wants to work in a company that tries to help people find the right balance between work and life;
- productivity will increase;
- absenteeism will be reduced;

- an employer will have a reputation of being a person of choice because he or she cares for his or her workforce and tries to help them.
- retaining valued employees: when the employees' knowledge will expand, flexibility will increase and it will help ensure on-going employment.
- teamwork and involvement: employee involvement is critical to the success of a company. It will increase human interaction, motivation and communication.

The client will also benefit from the company having a work-life balance. The Client will sense that the employees are happy in their jobs as they will be attended to in a friendly manner and service will be of high quality. Employees will take the time out to really listen to the client's needs and will go the extra mile to solve the issue (Vleems, 2005, p. 13).

Most important are the following (Frone, Russell, & Cooper, 1993; Greenhaus & Beutell, 1985; Rice, Frone, & McFarlin, 1992):

- Increased levels of stress and stress related illness
- Lower life-satisfaction
- High levels of family strife, violence, and divorce
- Rising incidence of substance abuse
- Growing problems with parenting and supervision with children and adolescents
- Escalating rates of juvenile delinquency and violence.

Work-life conflict of employees also has a substantial effect on corporations and can lead to the following (Rodgers & Rodgers, 1989; Thomas & Ganster, 1995):

- Higher rates of absenteeism and turnover

- Reduced productivity
- Decreased job satisfaction
- Lower levels of organizational commitment and loyalty
- Rising health care costs.

A number of enlightened organisations in the United States have gone so far as to design policies and programs to empower and assist employees in obtaining a balance in their work and life as they see a major significance in having a work-life balance (Hobsen, Delunas, & Kesic, 2001). Examples of companies that have engaged in these schemes include Motorola, MBNA America, Hewlett-Packard, SAS Institute, and Eddie Bauer (Bankert & Litchfield, 1998).

The programmes that are mainly offered by these types of companies are (Hobsen et al., 2001):

- On-site and subsidized child care and elder care,
- Flexible work hours,
- Job sharing,
- Dependent care spending accounts
- Easy access to employee assistance programs (EAP's), and,
- Supervisory training on the importance of work-life balance.

Studies have shown that work-life balance and innovative programmes to enhance the fulfilment of work and life responsibility can lead to substantial improvements in recruiting, absenteeism, voluntary turnover (turnover intention), productivity (psychological availability), organizational commitment and loyalty, job satisfaction

(psychological meaningfulness), stress levels, and health care costs (Cascio, 1998; Grover & Crooker, 1995; Marshall & Barnett, 1994).

Other more specific benefits include less loss of knowledge workers to competitors (Dex & Scheibl, 1999), a decrease in staff turnover would result in less recruitment and training costs (Dex & Scheibl, 1999; Eaton, 2001; Evans, 2001 ), becoming an employer of choice (psychological safety) (Dex & Scheibl, 2001), having a broader recruitment pool (Evans, 2001), improvement in the quality of applicants (Dex & Scheibl, 1999), an increased return on investment in terms of training (Dex & Scheibl, 1999), a decrease in the use of sick leave (Dex & Scheibl, 1999), increased parental leave return rate (Managing Work/Life Balance, 2003), and an improved corporate image which may result in greater sales or an improvement in the stock price of ethical investment choice (Dex & Scheibl, 1999; Eaton, 2001; Galinsky & Johnson, 1998). These outcomes give rise to a more efficient workforce and ultimately to the efficiency of an organization as a whole.

Focusing on the factors pertaining to this specific study would also need to be examined in terms of personal and societal consequences of work-life conflict.

Psychological conditions, namely psychological meaningfulness, psychological availability, and psychological safety would also be affected negatively when work-life conflict occurs. When work-life conflict occurs it means that clearly there is more than one role that needs satisfying and there is some form of imbalance between the roles. In both work and family there needs to be some form of consistency between the roles with regards to the input of psychological meaningfulness, psychological availability, and psychological safety for a proper



balance between the two roles to occur. This can be related to Marks and MacDermid (1996) where they found that role balance will only occur when all the roles in the role system as per individual has been equally satisfied. This notion could be the same for and turnover intention. If an individual is not committed to his/her job then there is some form of imbalance in the role system and turnover intention might arise.

Epstein (2005) explained that a “soft law” has been implemented in the UK that allows employees to ask their employers to schedule their day more flexibly. The Employer is not obliged or forced to grant the flexi-time arrangement but at least workers have the right to ask for flexi-solutions. This would be one of the areas that companies need to concentrate on as flexi-time allows for a better management of time across different roles. When companies focus on flexi-time they should allow their employees to schedule their daily activities to see when they have free time and they should refrain from jobs that are exhaustive, this in turn will help in them only performing the duties assigned to them. Employees should make sure that they strike a clear balance between family and work and this could be attained by leaving work on time in order to spend sufficient time with family, and also to schedule their weekend like they plan their work week to ensure that it is relaxing and worthwhile (The Career Exposure Network, 2003).

A study done by Lingard, Brown, Bradley, Bailey, and Townsend (2007, p. 814) suggests that organizations that make it a priority to strategize on the work-life balance of their employees have the benefit of having employees with “...increased physical and psychological well-being, greater motivation, improved productivity,

increased job commitment, and increased involvement in home/family activities.” As a result all of these benefits contribute to a high performing organization as a whole.

## **2.3 RELATED STUDIES**

This study focuses on work-life balance and its relation to work engagement. This means that one has to take a closer look at how these two concepts are related or affect one another, or how work-life interference affects work engagement in employees.

A study was done by Montgomery, Peeters, Schaufeli, and Den Ouden (2003) on newspaper managers in which they wanted to find out what the relationship between work-home interference was with burnout and engagement. To measure engagement, they made use of the engagement measure that was developed by Schaufeli et al. (2002) which consists of three sub-scales; vigour, dedication, and absorption. They found that positive work-home as well as home-work interference was correlated with feelings of dedication. A human resource intervention which accentuates the role of resources and uses the concept of engagement to exemplify what makes successful employees function better has a greater chance of organizational acceptance (Montgomery et al., 2003).

The term turnover intention refers to an employee’s intention to leave the company he/she works for at a specific moment in time. It is claimed by Meyer and Allen (1990) that turnover intention can be seen as the total opposite of organisational commitment as they state that individuals whom are committed to an organisation are likely to show less intention to leave either because they want to stay (affective commitment) , or because they need to remain (continuance commitment) (Meyer &

Allen, 1990). Also, if an employee is less committed to an organisation, the more they intend to leave.

## **2.4 HYPOTHESES**

*Hypothesis 1:* Negative WHI/HWI is negatively related to psychological availability.

*Hypothesis 2:* Positive WHI/HWI is positively related to psychological availability.

*Hypothesis 3:* Negative WHI/HWI is negatively related to psychological meaningfulness.

*Hypothesis 4:* Positive WHI/HWI is positively related to psychological meaningfulness.

*Hypothesis 5:* Negative WHI/HWI is negatively related to work engagement.

*Hypothesis 6:* Positive WHI/HWI is positively related to work engagement.

*Hypothesis 7:* Negative WHI/HWI is positively related to turnover intention.

*Hypothesis 8:* Positive WHI/HWI is negatively related to turnover intention.

*Hypothesis 9:* Psychological conditions mediate the relation between positive and negative WHI/HWI and work engagement.

*Hypothesis 10:* Psychological conditions mediate the relation between positive and negative WHI/HWI and turnover intention.

## **2.5 CHAPTER SUMMARY**

In this chapter the work engagement model and the work-life balance model were discussed. Firstly, work engagement was discussed with regards to its definition and its relation to other concepts, the importance of work engagement was scrutinised;

the antecedents of work engagement was examined, and then finally the outcomes of work engagement were investigated. Secondly, work-life balance and its related constructs were defined; why work-life balance occurs was expressed and also how it can be attained; the theories behind work-life balance were investigated; the benefits of work-life balance were discussed. Thirdly, other related studies were discussed like the turnover intention and the relationship between work-life balance and engagement. Lastly, the hypotheses of the study was outlined.

Hereby, the first objective, namely to conceptualise work-life interference, psychological conditions and engagement as well as the relationships between these factors from the literature, has been accomplished and the first question answered.

## **CHAPTER 3**

### **METHODOLOGY**

#### **3.1 INTRODUCTION**

In this chapter the method used for the empirical study is discussed. The focus will be on the choice and compilation of the research design, participants, procedure, administration and scoring of the measuring instruments, as well as relevant statistical analysis.

#### **3.2 RESEARCH DESIGN**

A quantitative study was conducted. More specifically a survey design was used. This method was deemed most appropriate as the researcher aimed to gain knowledge on how the work-life balance in relation to engagement phenomenon is understood and experienced by the participants.

#### **3.3 PARTICIPANTS**

The participants were employees of Rossing Mine whom are residents of Swakopmund, Walvis Bay and Arandis. The total population of the study at the end of April 2010 comprised of 1468 employees. The study has targeted approximately 300 employees of which 291 responded. The sub-populations vary considerably

which is why it was advantageous to use the stratified sampling method. The subgroups were clustered homogenously according to the ranks before sampling,

After a stratified sampling method has been utilised, a purposive sampling method was used so as to get participants that can read and write in English. This enabled a literate sample that was able to express them well and also allowed for a willingness to participate in the study.

With regard to the respondents' fluency in English, a sufficient grade 12 certificate had to be presented. This method is deemed most appropriate as it allows the researcher to use deliberate effort and judgement to obtain representative samples by including specific groups or areas in the sample (Key, 1997). After securing informed consent from participants, an interview was conducted by making use of structured questionnaires. For the purpose of this study the population was divided into four categories. Table 1 illustrates the characteristics of the sample.

Table 1

*Characteristics of Participants*

Items	Category	Frequency	%
Gender	Male	220	75.3
	Female	72	24.7
Work level	Subordinate	249	85.3
	Supervisor	32	11.0
	Manager	11	3.8
Parental Status	Yes	214	73.3
	No	78	26.7
Marital Status	Married	212	72.6
	Single	80	27.4

### **3.4 MEASURING INSTRUMENTS**

In this section the rationale and development, description, administration and scoring, interpretation and the reliability and validation of each measuring instrument are discussed.

The following questionnaires were used in this study:

#### **3.4.1 Survey Work–Home Interference-Nijmegen (SWING)**

The SWING was used to measure work-home interference in this study.

##### **3.4.1.1 Development and rationale of the SWING**

To date, the SWING (Survey Work-home Interaction-NijmeGem) is almost universally used as the instrument to assess Work-life balance. The SWING is a relatively new instrument and was only designed in 2005 to validate a new, working questionnaire on work-home interaction. Being as new as it is, this instrument was designed from existing theories.

Work psychological theories are based on the premise that workers interact with their work environment (i.e. job characteristics), and assume that workers' behaviour has consequences in terms of health and well-being. (Geurts, Taris, Kompier, Dijkers, Hooff, & Kinnunen, 2005, p. 320) According to Geurts et al. (2005, p. 320),

the SWING questionnaire draws from the Effort-Recovery (E-R) theory which “differentiates between the *direction* of influence (i.e. influence from work on private life and vice versa) and the *quality* of influence (i.e. negative versus positive influence). Geurts and Demerouti (2003) argued that too much emphasis in terms of research have been placed on the role scarcity theory and work-home conflict while the role enhancement theory and work-home interaction have been under-researched. This is testified by the abundant questionnaires that can be used with regards to work-life conflict rather than the few that can be used for positive work-life interaction.

The SWING contains subscales that assess the positive/negative WHI (work-home interaction) and positive/ negative HWI (home-work interaction). It has been found to be reliable, valid and easy to administer.

#### **3.4.1.2 Description of the SWING**

The SWING is designed to assess the amount of work–home interaction experienced by participants (Geurts et al., 2005). The SWING is a 22-item WHI measure which measures four types of WHI, namely: (1) the negative interference of work on home (negative WHI), which refers to the negative impact of the work situation on one’s functioning at home (eight items), (2) the negative interference of home on work (negative HWI), which refers to the negative impact of the home situation on one’s job performance (four items), (3) the positive interference of work on home (positive WHI), which refers to the positive influence of the work situation on one’s functioning at home (five items) and (4) the positive interference of home on work



(positive HWI), which refers to the positive impact of one's home situation on one's job performance (five items). All items were scored on a four-point frequency rating scale, ranging from 0 (*never*) to 3 (*always*).

#### **3.4.1.3 Administration and scoring of the SWING**

The SWING takes about 20 to 25 minutes to complete, is self-administered and complete instructions are provided for the respondent. The testing session should be characterised by respondent privacy, respondent confidentiality.

Respondents should complete the SWING privately. It can be done individually or in a group session in which privacy is insured. Respondents must feel comfortable about expressing their true feelings. Ideally, they should be able to complete the SWING anonymously. If this is not possible because identification is required, then efforts should be made to use a form of identification that is not personally revealing, such as a code number or a label. It is important that respondents be aware that the SWING measures their work-life balance. No special qualifications are required of the examiner who administrates the SWING. Ideally, the examiner should be seen as a neutral person, not a supervisor or authority figure. If he/she is well known to the respondents, he/she must be someone they trust.

Each respondents scoring is logged on a spread sheet to make scoring easier. The SWING scores for a group of respondents may be treated as aggregate data. Means and standard deviations for each subscale are computed for the entire group. The SWING scores can be correlated with other information obtained from respondents,

such as demographic data, job characteristics, job performance, personality or attitude measures, and health information. The factors that best predict SWING scores can be assessed by multiple regression techniques.

#### **3.4.1.4 Interpretation of the SWING**

Whatever statistical analyses are performed with the SWING, it is strongly recommended that the original numerical scores be used as the power of statistical analysis is greatly enhanced by using the full range of scores. The coding itself is intended primarily as feedback for individual respondents. It enables each respondent to compare him/herself to the overall norm and to obtain various aspects of burnout. However, neither the coding nor the original numerical scores should be used for diagnostic purposes; there is insufficient research on the pattern(s) of scores as indicators of individual dysfunction or the need for intervention.

#### **3.4.1.5 Reliability and validity of the SWING**

Geurts et al. (2005) report Cronbach's alpha coefficients of 0.84 for negative WHI and 0.75 for positive WHI, as well as 0.75 for negative HWI and 0.81 for positive HWI. In a South African sample, Marais et al. (2009) provided evidence of the construct validity, construct equivalence and reliability of the scale. They reported the following Cronbach's alpha coefficients for the SWING: negative WHI = 0.90, positive WHI = 0.84, negative HWI = 0.87 and positive HWI = 0.82.

“Validity evidence was also provided based on the relations with external (theoretically relevant) variables (i.e. job characteristics, home characteristics, and indicators of health and well-being)” (Geurts et al., 2005, p. 319).

#### **3.4.1.6 Motivation for using the SWING**

The SWING is a widely-used and well-validated, reliable self-report questionnaire on Work-life balance. The development of the SWING was based on the need for an instrument to assess both positive and negative work-life interaction. It was thought to “...contribute to current literature as it employs a relatively broad conceptualization of work-home interaction and offers a promising tool that measures its multiple components across a wide variety of workers” (Geurts et al. 2005, p. 319) Its inclusion in the measuring battery will allow a better understanding of the personal, social and institutional variables that allows for either positive or negative work-life balance. In addition to the significance of this knowledge for theories of work-life balance, such information will have the practical benefit of suggesting modification in recruitment, training, and job design that may alleviate this issue.

#### **3.4.2 Psychological Conditions Questionnaire (PCQ)**

##### **3.4.2.1 Development and Rationale of the PCQ**

The Psychological conditions underlying engagement is, psychological meaningfulness, psychological availability and psychological safety. Olivier and

Rothmann (2007) found that psychological meaningfulness displayed a significantly positive relationship with engagement and that the psychological condition of availability mediated the relationship between resources and work engagement.

#### **3.4.2.2 Description of the PCQ**

The Psychological Conditions Questionnaire was designed to measure three distinct psychological conditions namely, psychological meaningfulness, psychological availability, and psychological safety.

*Psychological meaningfulness* was measured by averaging six items ( $\alpha = 0.90$ ) drawn from the research of Spreitzer (1995) and May et al. (2004). For all the items, a 7-point agreement/disagreement Likert format from 1 (*disagree strongly*) to 7 (*agree strongly*) was used. These items measure the degree of meaning that individuals discovered in their work-related activities.

*Psychological availability* was measured by averaging six items ( $\alpha = 0.90$ ) drawn from the research of May et al. (2004). For all the items, a 7-point agreement/disagreement Likert format from 1 (*strongly disagree*) to 7 (*strongly agree*) was. These items measure the degree of availability (cognitive, emotional, and physical) that individuals discovered in their work-related activities.

*Psychological safety* was measured by averaging six items ( $\alpha = 0.90$ ) drawn from the research of May et al. (2004). For all the items, a 7-point agreement/disagreement Likert format from 1 (*strongly disagree*) to 7 (*strongly agree*) was used. These items

assess whether the individual feel comfortable to be themselves and express their opinions at work or whether there is a threatening environment at work.

#### **3.4.2.3 Administration and scoring of the PCQ**

The Psychological Conditions Questionnaire was administered in a paper-and-pencil format. Respondents were instructed to mark their answers on the questionnaire itself. The answers to the questions were manually entered into a spread sheet at the completion of the data gathering exercise.

#### **3.4.2.4 Interpretation of the PCQ**

The items on this questionnaire are designed to measure a variety of underlying psychological conditions which is said to mediate between the antecedents of engagement and the outward display of engagement. Factors that are investigated include, Psychological Availability, Psychological Safety and Psychological Meaningfulness. On the individual scales higher scores will indicate agreement with the stated items and lower scores indicate disagreement with that item. All the items on a specific scale combined would then illustrate the respondents' confirmation of the presence of those items in themselves when displaying the characteristics associated with being engaged. For example, many higher scores on the Psychological Meaningfulness items would indicate that the individual feel that they find meaning in their roles. Similarly if there are many lower scores on the Psychological Safety items it would indicate that the individual does not feel safe at work which could impede engagement.

#### **3.4.2.5 Reliability and validity of the PCQ**

The most relevant source of the adapted questionnaire that was used, that proves the validity of this questionnaire is that of Olivier and Rothmann (2007). Their results in each of the subsequent factors showed the following: Psychological Meaningfulness ( $\alpha = 0.92$ ), Psychological Availability ( $\alpha = 0.86$ ) and Psychological Safety ( $\alpha = 0.41$ ).

#### **3.4.2.6 Motivation for using the PCQ**

The relationship between the mediating conditions, namely, psychological meaningfulness, psychological availability and psychological safety is not yet fully understood. Some authors have proven that psychological safety mediates the relationship between the antecedents of engagement and work engagement (May et al., 2004), but this has not yet been proven in a Southern African context. Studies have been completed using the Work Experiences Scale developed by May et al. (2004), but the same results have not yet been confirmed. Some objectives of this study include the identification and measurement of the mediating factors underlying engagement. This tool serves that purpose.

#### **3.4.3 Work Engagement Questionnaire (WEQ)**

The Psychological Engagement questionnaire developed by May et al. (2004) and adapted by Olivier and Rothmann (2007), to the Work Engagement Questionnaire

(WES), was used to measure work engagement. For all items, a 5-point agreement-disagreement Likert format from 1 (*never*) to 5 (*always*) was used. The items reflected each of the three components of Kahn's (1990) conceptualisation of work engagement, namely cognitive, emotional and physical engagement. In their research, Olivier and Rothmann (2007) found a one-factor engagement model consisting of cognitive, emotional and physical engagement ( $\alpha = 0.72$ ), which is consistent with the findings of May et al. (2004).

#### **3.4.3.1 Development and rationale of the WEQ**

The WEQ has proven to measure engagement effectively in several studies in South Africa and abroad (May et al., 2004; Van Zyl, Deacon, & Rothmann, 2010).

#### **3.4.3.2 Description of the WEQ**

The *Engagement Questionnaire* (EQ) was used to measure employee engagement. This scale was originally developed by May et al. (2004) and adapted by Van Zyl et al. (2010). Employee is defined by Kahn (1990) as the attachment of oneself to one's work on a physical, cognitive, and emotional level. These items reflect each of the three components of Kahn's (1990) conceptualisation of employee engagement, namely emotional ("I am passionate about my job"), cognitive ("I get so into my job that I lose track of time"), and physical engagement ("I am full of energy in my work").

#### **3.4.3.3 Administration and scoring of the WEQ**

All items were measured on a 7-point agreement-disagreement Likert Scale. The format was from 1 (*never*) to 7 (*always*). The Engagement Questionnaire was administered in a pen and paper format. Respondents were instructed to mark their answers on the questionnaire itself. The answers to the questions were manually entered into a spread sheet at the completion of the data gathering exercise.

#### **3.4.3.4 Interpretation of the WEQ**

The items on this questionnaire are designed to measure the level of engagement present in an individual. On the individual items higher scores will indicate agreement with the stated items and lower scores indicate disagreement with that item. All the items on the questionnaire would then illustrate the employee's level of engagement at work.

#### **3.4.3.5 Reliability and validity of the WEQ**

The most relevant source of the adapted questionnaire that was used, that proves the validity of this questionnaire is that of Van Zyl et al. (2010). Their results showed the following: Work Engagement ( $\alpha = 0.93$ ).



### **3.4.3.6 Motivation for using the WEQ**

This instrument has been proved to be effective in the measurement of engagement in other countries that share similar characteristics in their demographics than Namibia (Van Zyl et al., 2010). In order to achieve the objectives set for this study an effective instrument is needed to measure engagement.

### **3.4.4 Turnover Intention (TIQ)**

#### **3.4.4.1 Development and rationale of the TIQ**

The TIQ was developed by Kelloway, Gotlieb, and Barham (1999) to assess the intention to quit. The rationale for using this instrument is that it is reliable and valid as will be explained when discussing the reliability and validity of this instrument.

#### **3.4.4.2 Description of the TIQ**

The TIQ is designed to assess the amount of turnover intention experienced by participants. Only 3 items was drawn from the TIQ to assess the participants intention to quit ('I frequently think of quitting my job', 'I am planning to search for a new job during the next 12 months', and 'If I have my own way, I will be working for this organisation one year from now').

#### **3.4.4.3 Administration and scoring of the TIQ**

The TIQ was administered in a paper-and-pencil format. Respondents were instructed to mark their answers on the questionnaire itself. The answers to the questions were manually entered into a spread sheet at the completion of the data gathering exercise. Respondents rated each item on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree).

#### **3.4.4.4 Interpretation of the TIQ**

The items on this questionnaire are designed to measure the level of turnover intention present in an individual. On the individual items higher scores will indicate agreement with the stated items and lower scores indicate disagreement with that item. All the items on the questionnaire would then illustrate the employee's level of turnover intention at work.

#### **3.4.4.5 Reliability and validity of the TIQ**

In the study done by Leiter and Maslach (2009) on the mediating role of burnout on nurse turnover, the internal consistency was high ( $\alpha = 0.82$ ). The item-total correlations ranged from  $r = 0.57$  to  $0.63$ .

#### **3.4.4.6 Motivation for using the TIQ**

This instrument has proven to be effective in the measurement of turnover intention in other countries. In order to achieve the objectives set for this study an effective instrument is needed to measure turnover intention.

### **3.5 PROCEDURE**

The researcher engaged the support of three human resource practitioners from different sections of Human Resources Department of the mine to assist with conducting purposive sampling on employees represented in each of their respective sections. A selection of 100 participants of each human resource practitioner's section was necessary to obtain the desired sample size of 300. The researcher followed up with the selected employees to personally explain the purpose of the research and to request voluntary participation in the research. The objective of the study was explained to the human resource practitioners so that they could have more insight when giving the information to the potential participants to ensure that they could make informed decisions about their involvement in the study. The instruments were designed using simple questions in English that study participants with a basic literacy rate should be able to understand. The Human resource practitioners dispersed the questionnaires, after receiving informed consent, and allowed for the returns of the questionnaires as well and then after collecting all the completed questionnaires, they sent it back to the researcher.

### **3.6. STATISTICAL ANALYSIS**

The analysis was carried out with the SPSS 19.0 (SPSS, 2011). An exploratory factor analysis was conducted to confirm that the measures were distinct from one another. All the variables were used in a principal factor analysis with a direct oblimin rotation. A cut-off point of 0.40 was used for cross-loadings. Common method variance was assessed according to Harmon's one-factor test for common method bias (Podsakoff & Organ, 1986). The reliability of the measuring instruments was assessed by means of Cronbach alpha coefficients. Descriptive statistics (means and standard deviations) was computed to describe the data. Pearson product-moment correlation coefficients were used to specify the relationships between the variables. The level of statistical significance was set at  $p < 0.05$ . Effect sizes (Steyn, 1999) were used to decide on the practical significance of the findings. A cut-off point of 0.30 (medium effect, Cohen, 1988) was set for the practical significance of correlation coefficients.

Hierarchical multiple regression analyses were conducted to determine the amount of variance in the dependent variable, predicted by the independent variables (Tabachnick & Fidell, 2001).

Mediation analyses were conducted to assess the mediating effects of psychological conditions on the relation between work/home and home/work interference on the one hand and work engagement and turnover intention on the other hand using multiple mediators to simultaneously assess the mediating effects. Contrary to earlier approaches (e.g. Baron & Kenny, 1986), mediation is not determined by the significance of direct and total effects, but is determined entirely by the size of

indirect effect (Preacher & Hayes, 2009). The MEDIANTE procedure developed by Hayes and Preacher (in press) was used to estimate the indirect effects of independent variables on outcomes variables through proposed mediator variables. The procedure provides an omnibus test for indirect effects for a set of independent variables. Bootstrap procedures suggested by Preacher and Hayes (2009) were used to make inferences for indirect effects. Bootstrap percentile confidence intervals (5000 trials), which were used to assess whether indirect effects were different from zero, were set at 0.95.

### **3.7 CHAPTER SUMMARY**

This chapter dealt with the method used for the empirical study. The choice and compilation of the study population, measuring battery, administration and scoring of the measuring instruments were discussed as well as relevant statistical analyses.

## **CHAPTER 4**

### **RESULTS**

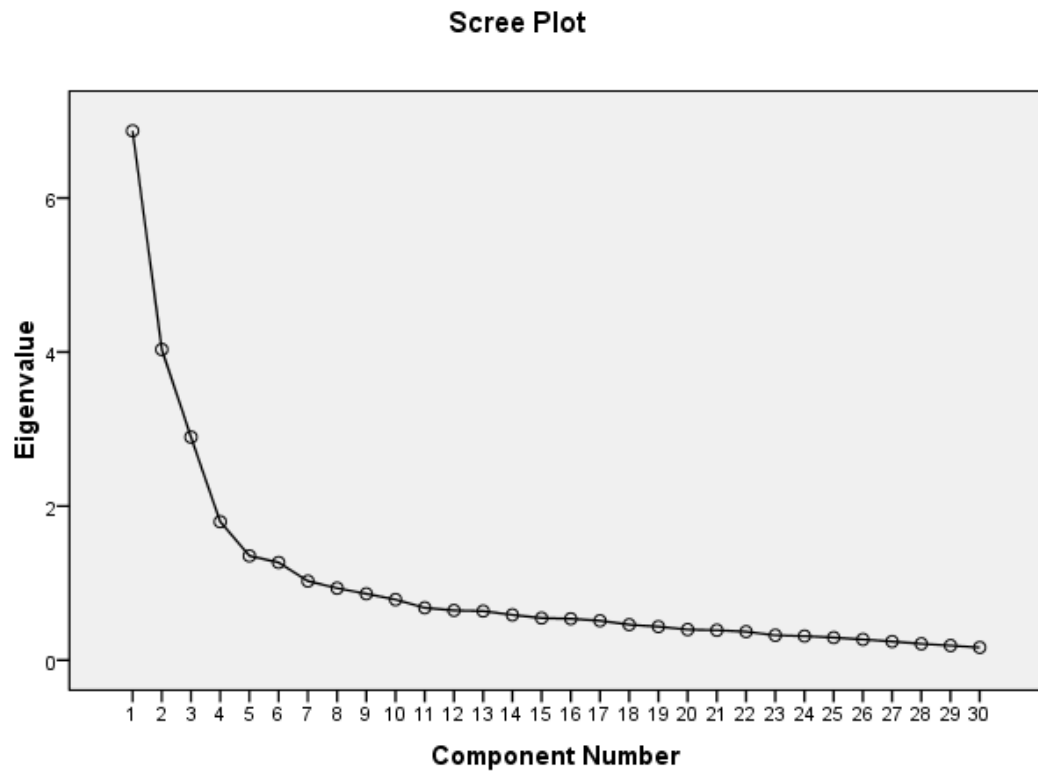
In this chapter the results of the evaluation of the measurement battery (testing the measurement model) is reported and discussed. Secondly, the structural model (correlations and regressions) is tested. Thirdly, the results will be discussed and interpreted.

#### **4.1 CONSTRUCT VALIDITY OF THE MEASURING INSTRUMENTS**

Next, the construct validity of the measuring instruments, namely the Survey Work-home Interaction-NijmeGen (SWING), Psychological Conditions Scale (PCS), Engagement Scale (ES), and the Turnover Intention Scale (TIS) are reported.

##### **4.1.1 SWING**

A principle component analysis was carried out on the 30 items of the SWING to assess the number of factors. The Kaiser-Meyer-Olkin measure of sampling adequacy showed a value of 0.85, while the Bartlett's test of Sphericity was statistically significant ( $p < 0.01$ ). These results show that the items were factorable. Seven factors had eigenvalues larger than one. These seven factors explained 64.14% of the total variance. The scree plot is shown in Figure 1.



*Figure 1.*Scree plot of the SWING

The scree plot showed that four factors could be extracted. These factors explained 51.9% of the variance. Next a principal axis factor analysis with a direct oblimin rotation was carried out on the 30 items of the SWING. The pattern matrix is reported in Table 1.

Table 2

*Pattern Matrix of the SWING*

	1	2	3	4	$h^2$
WHI\WH10 .you are so busy at work that you do not have enough time for activities at home?	<b>0.83</b>	0.00	-0.07	0.00	0.65
WHI\WH8 .you have to work so hard that you do not have time for any of your hobbies?	<b>0.79</b>	0.03	-0.04	0.01	0.61
WHI\WH7 your work schedule makes it difficult for you to fulfill your domestic obligations?	<b>0.77</b>	0.01	0.01	0.05	0.62
WHI\WH9 your work takes up time that you would have liked to spend with your spouse/family/friends?	<b>0.75</b>	-0.02	-0.01	0.06	0.59
WHI\WH4 .you do not have the energy to engage in leisure activities with your spouse/family/friends because of your job?	<b>0.71</b>	-0.02	-0.05	0.01	0.48
WHI\WH6 you have to cancel appointments with your spouse/family/friends due to work-related commitments?	<b>0.70</b>	0.08	0.03	0.02	0.51
WHI\WH5 your work obligations make it difficult for you to feel relaxed at home?	<b>0.67</b>	-.010	0.06	-0.05	0.49
WHI\WH3 you find it difficult to fulfill your domestic obligations because you are constantly thinking about your work?	<b>0.59</b>	-0.03	0.03	-0.08	0.35
WHI\WH1 you are irritable at home because your work is demanding?	<b>0.45</b>	-0.03	0.09	0.17	0.32
WHI\WH2 you do not fully enjoy the company of your spouse/family/friends because you worry about your work?	<b>0.37</b>	-0.07	0.27	-0.03	0.30
WHI\HW14 you are better able to keep appointments at work because your are required to do the same at home?	0.00	<b>0.85</b>	0.01	0.07	0.68
WHI\HW13 you take your responsibilities at work more seriously because you are required to do the same at home?	-0.01	<b>0.82</b>	0.02	-0.00	0.68
WHI\HW15 .you manage your time at work more efficiently because at home you have to do that as well?	-0.03	<b>0.80</b>	-0.07	-0.01	0.68
WHI\HW12 .after spending a pleasant weekend with your spouse/family/friends, you have more fun in jour job?	0.02	<b>0.56</b>	-0.01	-0.17	0.42
WHI\HW11 after spending time with your spouse/family/friends, you go to work in a good mood, positively affecting the atmosphere at work?	-0.07	<b>0.54</b>	0.05	-0.08	0.34
WHI\HW4 problems with your spouse/family/friends affect your job performance?	0.00	0.06	<b>0.69</b>	-0.07	0.46
WHI\HW5 you do not feel like working because of problems with your spouse/family/friends?	-0.04	-0.01	<b>0.67</b>	0.04	0.44
WHI\HW8 you have so much domestic obligations that you cannot find the time for certain things at work?	0.00	-0.15	<b>0.64</b>	-0.12	0.44



Table 2

*Pattern Matrix of the SWING (continued)*

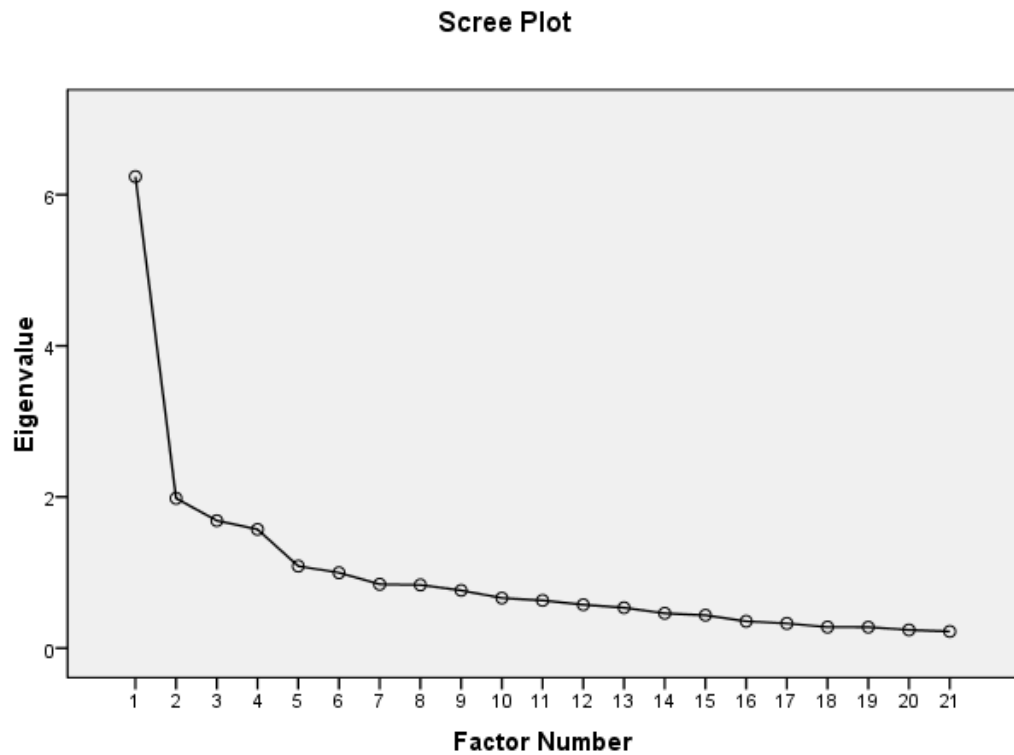
WHI\HW7 you arrive late at work because of domestic obligations?	-0.15	0.02	<b>0.62</b>	0.06	0.34
WHI\HW9 your private life takes up time that you would have liked to spend on your work?	-0.09	-0.11	<b>0.56</b>	-0.01	0.31
WHI\HW3 you have difficulty concentrating on your work because you are preoccupied with domestic matters?	0.10	0.08	<b>0.53</b>	-0.02	0.32
WHI\HW2 you do not fully enjoy your work because you worry about your home situation?	0.14	0.13	<b>0.52</b>	0.07	0.35
WHI\HW6 you have to cancel appointments at work due to home-related commitments?	0.09	-0.04	<b>0.41</b>	-0.02	0.21
WHI\HW1 the situation at home makes you so irritable that you take your frustrations out on your colleagues?	0.14	0.06	<b>0.40</b>	0.02	0.21
WHI\HW10 Your home chores and child care activities demand time at the expense of your work?	0.04	-0.01	<b>0.37</b>	0.02	0.15
WHI\WH15 you are better able to interact with your spouse/family/friends as a result of the things you have learned at work?	0.06	-0.00	0.05	<b>-0.85</b>	0.70
WHI\WH14 you manage your time at home more efficiently as a result of the way you do your job?	-0.05	-0.01	0.10	<b>-0.78</b>	0.63
WHI\WH13 you fulfil your domestic obligations better because of the things you have learned on your job?	-0.04	0.04	0.01	<b>-0.76</b>	0.61
WHI\WH12 after a pleasant working day/working week, you feel more in the mood to engage in activities with your spouse/family/friends?	-0.07	0.01	-0.06	<b>-0.61</b>	0.41
WHI\WH11 you come home cheerfully after a successful day at work, positively affecting the atmosphere at home?	0.04	0.15	-0.12	<b>-0.51</b>	0.36

A principal axis factor analysis with a direct Oblimin rotation was carried out on the 30 items of the questionnaire specifying four factors because the factors were moderately related. The four factors that were found are namely, Negative Work-home Interference (NWHI), Positive Work-home interference (PWHI), Negative Home-work Interference (NHWI), and Positive Home-work Interference (PHWI). NWHI is defined by a negative spillover from the work domain that hinders functioning at home; PHWI occurs when a positive spillover from the work domain

allows for better functioning at home; NHWI occurs when a negative spillover from the home domain hinders functioning at work; and PHWI is defined by a positive spillover from the home domain that allows for better functioning at work (Geurts et al., 2005).

#### **4.1.2 PSYCHOLOGICAL CONDITIONS QUESTIONNAIRE**

A principle component analysis was carried out on the 21 items of the Psychological conditions questionnaire to assess the number of factors. The Kaiser-Meyer-Olkin measure of sampling adequacy showed a value of 0.85, while the Bartlett's test of Sphericity was statistically significant ( $p < 0.01$ ). These results show that the items were factorable. The principle component analysis showed that five factors had eigenvalues higher than one explaining 59.8% of the total variance. The scree plot is shown in Figure 2.



*Figure 2.*Scree plot of the PCQ

The scree plot showed that two factors could be extracted and these factors explained 39.2% of the total variance. Next a principal axis factor analysis with a direct oblimin rotation was carried out on the 21 items. The pattern matrix is reported in Table 3.

Table 3

*Pattern Matrix of the PCQ*

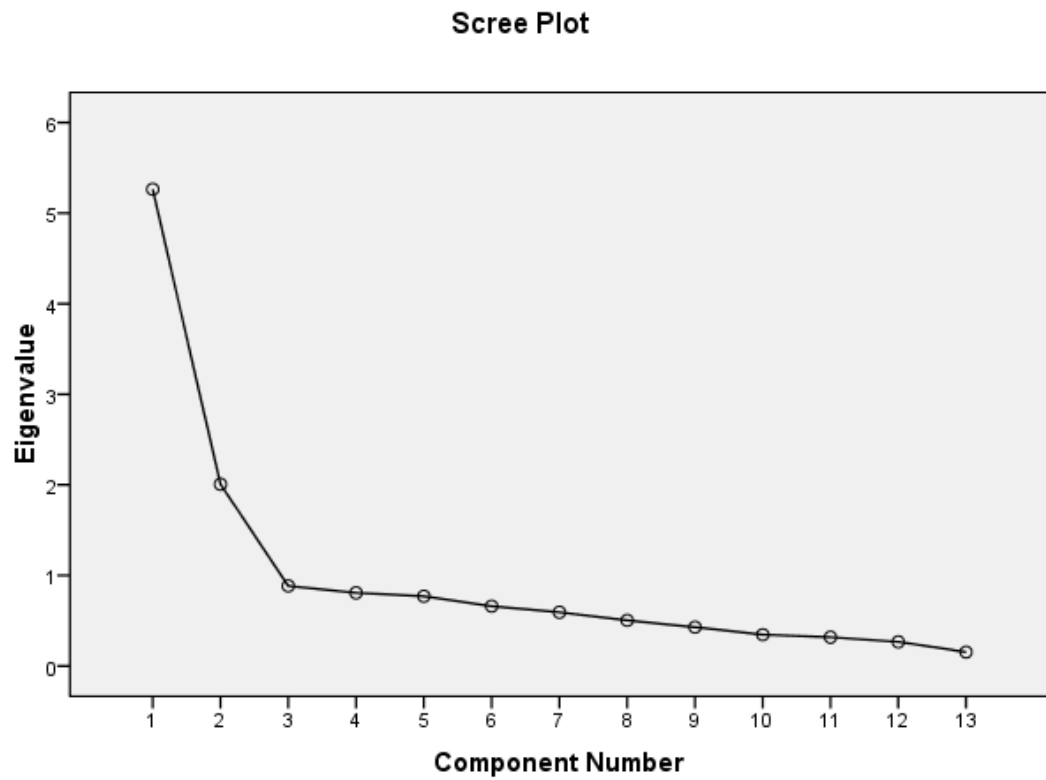
Item	1	2	3	4	$h^2$
Avail2 I am confident in my ability to deal with problems that come up at work.	<b>0.84</b>	0.09	-0.04	0.06	0.66
Avail6 I am confident about my ability to do my job.	<b>0.79</b>	-0.11	-0.02	-0.21	0.71
Avail3 I am confident in my ability to think clearly at work.	<b>0.77</b>	0.01	-0.00	-0.06	0.57
Avail1 I am confident in my ability to handle competing demands at work.	<b>0.76</b>	0.03	-0.12	0.07	0.57
Avail8. I am self-assured about my capabilities to perform my work activities.	<b>0.67</b>	-0.14	0.09	-0.09	0.57
Avail7 I have mastered the skills necessary for my job.	<b>0.56</b>	-0.01	0.12	-0.04	0.34
Avail4 I am confident in my ability to display the appropriate emotions at work.	<b>0.46</b>	0.00	-0.00	0.18	0.27
Avail5 I am confident that I can handle the physical demands at work.	<b>0.45</b>	-0.17	-0.07	0.11	0.34
Meaning 3 My job activities are personally meaningful to me	-0.07	<b>-0.75</b>	0.06	0.07	0.53
Meaning2 The work I do is very important to me.	0.12	<b>-0.74</b>	0.10	-0.10	0.64
Meaning6 I feel that the work I do on my job is valuable.	0.18	<b>-0.70</b>	-0.05	-0.10	0.63
Meaning5 My job activities are significant to me.	-0.03	<b>-0.69</b>	0.08	0.22	0.54
Meaning1 The work I do is meaningful to me.	0.05	<b>-0.67</b>	-0.02	-0.08	0.48
Meaning4 The work that I do on this job is worthwhile.	0.15	<b>-0.53</b>	-0.08	0.07	0.41
Safety3 People in my section sometimes reject others for being different.	-0.07	-0.03	<b>0.69</b>	-0.02	0.47
Safety5 It is difficult to ask colleagues at work for help.	-0.03	0.04	<b>0.50</b>	0.05	0.25
Safety1. If you make a mistake at work, it is often held against you.	0.07	-0.09	<b>0.35</b>	-0.09	0.14
Safety6. No one in my section would deliberately act in a way that undermines my efforts.	0.01	-0.02	-0.16	<b>0.58</b>	0.37
Safety7 Working with colleagues in my section, my unique skills and talents are valued and utilised.	-0.00	-0.24	-0.19	<b>0.45</b>	0.32
Safety2 Individuals in my section are able to bring up problems and tough issues.	0.08	-0.19	0.19	<b>0.34</b>	0.24
Safety4. It is safe to take a risk in my section.	0.06	0.16	0.22	<b>0.33</b>	0.18

A principle axis factor analysis with a direct Oblimin rotation was carried out on the 21 items of the PCQ questionnaire specifying two factors because the factors were moderately related. The two factors that were found are namely, Psychological availability and psychological meaningfulness. Psychological availability refers to a

sense of having the physical, cognitive and emotional resources available in order to engage at a particular moment. Psychological meaningfulness refers to a feeling of getting out what one invests into one's job in terms of physical, cognitive or emotional energy. An item that identifies with psychological availability is 'I am confident in my ability to deal with problems that come up at work'. An item on the questionnaire that identifies with psychological meaningfulness is 'My job activities are personally meaningful to me'.

#### **4.1.3 WORK ENGAGEMENT QUESTIONNAIRE**

A principle component analysis was carried out on the Work engagement questionnaire to assess the number of factors in the questionnaire. The Kaiser-Meyer-Olkin and Bartlett's Test showed a value of 0.87. The Bartlett's test of Sphericity was statistically significant ( $p < 0.01$ ), this indicates that the questionnaire items were factorable. The principle component analysis showed that two factors had eigenvalues higher than 1 explaining 55.9% of the total variance. The scree plot is shown in Figure 3.



*Figure 3.* Scree plot of WEQ

The scree plot showed that two factors could be extracted and these factors explained 55.9% of the total variance. A principle axisfactor analysis with a direct Oblimin rotation was carried out on 13 items. The pattern matrix is reported in Table 4.

Table 4

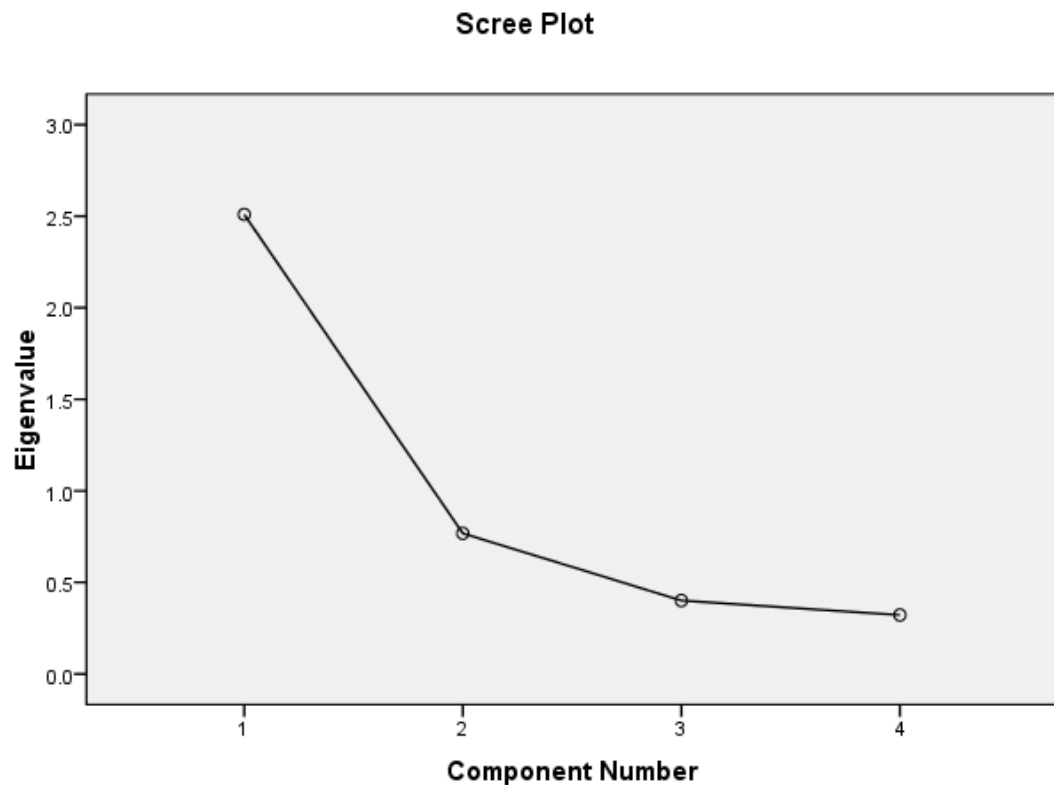
*Pattern Matrix of WEQ*

Item	1	2	3	$h^2$
ENG\PH12. I feel alive and vital at work	<b>0.83</b>	0.02	-0.38	0.95
ENG\PH11. I am full of energy in my work.	<b>0.82</b>	0.01	-0.30	0.77
ENG\EM7. I feel energised when I work.	<b>0.78</b>	0.03	-0.03	0.62
ENG\PH10 I feel a lot of energy when I am performing my job.	<b>0.74</b>	-0.04	0.01	0.53
ENG\PH13. I feel physically strong at work.	<b>0.72</b>	-0.04	-0.21	0.55
ENG\EM8 I am enthusiastic about my job.	<b>0.71</b>	0.10	0.24	0.61
ENG\EM9. I get excited when I perform well on my job.	<b>0.65</b>	0.04	0.09	0.44
ENG\EM6. I am passionate about my job	<b>0.62</b>	0.02	0.22	0.43
ENG\COG5 I feel I am able to contribute new ideas.	<b>0.53</b>	-0.01	0.09	0.28
ENG\COG4. When I'm working, I often lose track of time.	-0.09	<b>0.92</b>	-0.08	0.80
ENG\COG1 I get so into my job that I lose track of time.	0.02	<b>0.78</b>	-0.15	0.61
ENG\COG3 I am very absorbed in my work.	0.17	<b>0.41</b>	0.09	0.25
ENG\COG2. I am rarely distracted when performing my job	-0.04	<b>0.37</b>	0.06	0.14

A principal axis factor analysis with a direct Oblimin rotation was carried out on the 13 items of the WEQ specifying two factors because the factors were moderately related. The two factors that were found are namely, Work Engagement and Cognitive Engagement. Work Engagement is defined as having high levels of energy and mental flexibility while working, being willing to put extra effort into one's work, as well as to persist even when difficulties arise and also to be strongly involved with one's job in which one experiences a sense of worth, interest, motivation, self-importance, and challenge. Cognitive Engagement occurs when employees become so absorbed in their work that they might lose track of time and don't really take note of what is happening around them at that point in time. An item that describes work engagement is, 'I feel alive and vital at work'. An item that identifies with Cognitive Engagement is, 'When I am working, I often lose track of time'.

#### 4.1.4 TURNOVER INTENTION QUESTIONNAIRE

We carried out a principle component analysis to assess the number of factors in the Turnover intention questionnaire. The Kaiser-Meyer-Olkin and Bartlett's Test showed a value of 0.77. The Bartlett's test of Sphericity was statistically significant ( $p < 0.01$ ); this indicates that the questionnaire items were factorable. The principle component analysis showed that 1 factor had an eigenvalue higher than 1 explaining 62.7% of the total variance. The scree plot is shown in Figure 4.



*Figure 4.* Scree plot of TIQ

The scree plot showed that one factor could be extracted and this factor explained 62.7% of the total variance. The component matrix is reported in Table 5.



Table 5

*Component Matrix of TIQ*

Item	Component	$h^2$
TI2 I frequently think of quitting my job.	0.87	0.76
TI3 I am planning to search for a new job during the next 12 months	0.84	0.71
TI4 If I have my own way, I will be working for this organization only one year from now.	0.84	0.70
TI1 I feel a strong sense of belonging to my organisation.	-0.59	0.34

A principle axis factor analysis with a direct Oblimin rotation was carried out on the four items of the TIQ questionnaire. The factor that could be extracted is called turnover intention. Turnover intention occurs when an employee feels a strong urge to leave his/her organisation.

## **4.2 DESCRIPTIVE STATISTICS, INTERNAL CONSISTENCIES AND CORRELATIONS**

The descriptive statistics (means, standard deviations and Cronbach alpha coefficients) and Pearson correlations are reported in Table 6.

Table 6

*Descriptive Statistics, Alpha Coefficients and Pearson Correlations of the Scales: SWING, PCS, WEQ and TI*

	Mean	SD	$\alpha$	1	2	3	4	5	6	7
1. NWHI	0.69	0.60	0.90	-	-	-	-	-	-	-
2. PWHI	1.73	0.79	0.84	-0.23**	-	-	-	-	-	-
3. NHWI	0.31	0.33	0.80	0.40**+	-0.07	-	-	-	-	-
4. PHWI	2.19	0.78	0.86	-0.13*	0.42**+	-0.11	-	-	-	-
5. Psychological Meaningfulness	6.17	0.94	0.86	-0.24**	0.17**	-0.23**	0.06	-	-	-
6. Psychological Availability	6.32	0.74	0.86	-0.15**	0.15**	-0.33**+	0.13*	0.53**+	-	-
7. Work Engagement	5.82	1.00	0.90	-0.20**	0.31**+	-0.23**	0.25**	0.43**+	0.40**+	-
8. Turnover Intention	2.69	1.57	0.80	0.25**	-0.33**+	0.12*	-0.26**	-0.25**	-0.13*	-0.34**+

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

+  $r > 0.30$  - practically significant (medium effect)

++  $r > 0.50$  - practically significant (large effect)

NWHI was statistically significantly related to psychological meaningfulness ( $r = -0.24$ ), psychological availability ( $r = -0.15$ ), work engagement ( $r = -0.20$ ), and turnover intention ( $r = 0.25$ ).

PWHI is statistically and practically significantly related to work engagement ( $r = 0.31$ ;  $p < 0.01$ ; medium effect) and turnover intention ( $r = -0.33$ ;  $p < 0.01$ ; medium effect) and statistically significantly related to psychological meaningfulness ( $r = 0.17$ ), and psychological availability ( $r = 0.15$ ).

NHWI is statistically and practically significantly and negatively related to psychological availability ( $r = -0.33$ ;  $p < 0.01$ ; medium effect) and statistically significantly related to psychological meaningfulness ( $r = -0.23$ ), work engagement ( $r = -0.23$ ), and turnover intention ( $r = 0.12$ ).

PHWI is statistically significantly related to psychological meaningfulness (0.13), psychological availability ( $r = 0.25$ ), work engagement ( $r = 0.24$ ), and turnover intention ( $r = -0.26$ ). Psychological meaningfulness is reported to be practically and statistically significantly related to psychological availability ( $r = 0.53$ ;  $p < 0.01$ ; medium effect), work engagement ( $r = 0.43$ ;  $p < 0.01$ ; medium effect), and statistically significantly related to turnover intention ( $r = -0.25$ ). Psychological availability is statistically and practically significantly related to work engagement ( $r = 0.40$ ;  $p < 0.01$ ; medium effect), and statistically significantly and negatively related to turnover intention ( $r = -0.13$ ).

Work engagement is statistically and practically significantly and positively related to and negatively related to turnover intention ( $r = -0.34$ ;  $p < 0.01$ ; medium effect).

#### **4.3 MULTIPLE REGRESSION ANALYSES**

Next, a series of hierarchical regression analyses were conducted to examine the relationship between work-life interference, psychological conditions and work engagement.

A multiple regression analysis was carried out with psychological availability as the dependent variable and with negative WHI, negative HWI, positive WHI, and positive HWI as the independent variables. Table 7 shows the results.

Table 7

*Multiple Regression Analyses with NWHI, NHWI, PWHI, and PHWI as Independent Variables and Psychological Availability as Dependent Variable*

	Unstandardised Coefficients		Standardised Coefficients	<i>t</i>	<i>p</i>	<i>F</i>	$\Delta R^2$
	B	SE	Beta				
1						10.24*	0.13
(Constant)	50.03	1.21		41.33	0.00		
NWHI	0.00	0.06	0.00	0.05	0.96		
NHWI	-0.56	0.11	-0.31	-5.19	0.00*		
PWHI	0.16	0.09	0.11	1.75	0.08		
PHWI	0.08	0.09	0.05	0.83	0.41		

\*  $p < 0.01$

The results in Table 7 show that negative WHI, negative HWI, positive WHI, and positive HWI predict 13% of the variance in psychological availability ( $F = 10.24$ ,  $p \leq 0.01$ ). Only the regression coefficient of negative HWI ( $\beta = -0.31$ ,  $p \leq 0.01$ ) was statistically significant. Hypothesis 1 is therefore partially accepted. Hypothesis 2 is rejected.

A multiple regression analysis was carried out with psychological meaningfulness as the dependent variable and negative WHI, negative HWI, positive WHI, and positive HWI as the independent variables. Table 8 shows the results.

Table 8

*Multiple Regression Analyses with NWHI, NHWI, PWHI, and PHWI as Independent Variables and Psychological Meaningfulness as Dependent Variable*

	Unstandardised Coefficients		Standardised Coefficients	<i>t</i>	<i>p</i>	<i>F</i>	$\Delta R^2$
	B	SE	Beta				
1						7.63*	0.10*
(Constant)	37.69	1.17		32.22	0.00		
NWHI	-0.14	0.06	-0.15	-2.40	0.02*		
NHWI	-0.28	0.10	-0.16	-2.65	0.01*		
PWHI	0.20	0.09	0.14	2.26	0.02*		
PHWI	-0.05	0.09	-0.04	-0.60	0.55		

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

The results in Table 8 shows that negative WHI, negative HWI, positive WHI, and positive HWI predict 10% of the variance in psychological meaningfulness ( $F = 7.63$ ,  $p \leq 0.01$ ). The regression coefficients of negative WHI ( $\beta = -0.15$ ,  $p \leq 0.01$ ), negative HWI ( $\beta = -0.16$ ,  $p \leq 0.01$ ), and positive WHI ( $\beta = 0.14$ ,  $p \leq 0.01$ ), were statistically significant. Hypothesis 3 is accepted while hypothesis 4 is partially accepted.

A multiple regression analysis was carried out with work engagement as the dependent variable and with negative WHI, negative HWI, positive WHI, and positive HWI as the independent variables. Table 9 shows the results.

Table 9

*Multiple Regression Analyses with NWHI, NHWI, PWHI, and PHWI as Independent Variables and Work Engagement as Dependent Variable*

	Unstandardised Coefficients		Standardised Coefficients	<i>t</i>	<i>p</i>	<i>F</i>	$\Delta R^2$
	B	SE	Beta				
1						12.82**	0.15
(Constant)	41.70	1.62		25.82	0.00		
NWHI	-0.09	0.08	-0.07	-1.10	0.27		
NHWI	-0.41	0.14	-0.17	-2.84	0.01**		
PWHI	0.47	0.12	0.23	3.76	0.00**		
PHWI	0.25	0.12	0.12	2.00	0.05*		

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

The results in Table 9 shows that negative WHI, negative HWI, positive WHI, and positive HWI predict 15% of the variance in work engagement ( $F = 12.82$ ,  $p \leq 0.01$ ). The regression coefficients of negative HWI ( $\beta = -0.17$ ,  $p \leq 0.01$ ), positive HWI ( $\beta = 0.23$ ,  $p \leq 0.01$ ), and positive WHI ( $\beta = 0.12$ ,  $p \leq 0.05$ ) were statistically significant. Hypothesis 5 is partially accepted while hypothesis 6 is accepted.

A multiple regression analysis was carried out with work engagement as the dependent variable and with psychological meaningfulness and psychological availability as the independent variables. Table 10 shows the results.

Table 10

*Multiple Regression Analyses with Psychological Meaningfulness and Psychological Availability as Independent Variables and Work Engagement as Dependent Variable*

	Unstandardised Coefficients		Standardised Coefficients	<i>t</i>	<i>p</i>	<i>F</i>	$\Delta R^2$
	B	SE	Beta				
1						41.58**	0.22
(Constant)	14.22	3.72		3.82	0.00		
Psychological Meaningfulness	0.42	0.09	0.30	4.87	0.00**		
Psychological Availability	0.33	0.08	0.24	4.00	0.00**		

$p < 0.01$

The results in Table 10 shows that psychological meaningfulness and psychological availability predict 22% of the variance in work engagement ( $F = 41.58$ ,  $p \leq 0.01$ ). The regression coefficients of both psychological meaningfulness ( $\beta = 0.30$ ,  $p \leq 0.01$ ) and psychological availability ( $\beta = 0.24$ ,  $p \leq 0.01$ ), are statistically significant.

A multiple regression analysis was carried out with work engagement as the dependent variable and with negative WHI, negative HWI, positive WHI, positive HWI, psychological meaningfulness, and psychological availability as the independent variables. Table 11 shows the results.



Table 11

*Multiple Regression Analyses with NWHI, NHWI, PWHI, PHWI, Psychological Meaningfulness, Psychological Availability as Independent Variables and Work Engagement as Dependent Variable*

	Unstandardised Coefficients		Standardised Coefficients	<i>t</i>	<i>p</i>	<i>F</i>	$\Delta R^2$
	B	SE	Beta				
2						19.59**	0.29
(Constant)	14.37	4.09		3.51	0.00		
NWHI	-0.04	0.08	-0.03	-0.48	0.63		
NHWI	-0.16	0.14	-0.07	-1.14	0.25		
PWHI	0.35	0.12	0.17	3.02	0.00**		
PHWI	0.25	0.11	0.12	2.18	0.03*		
Psychological Meaningfulness	0.38	0.09	0.27	4.42	0.00**		
Psychological Availability	0.26	0.08	0.19	3.17	0.00**		

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

The results in Table 11 shows in step 1 that negative WHI, negative HWI, positive WHI, and positive HWI predict 15% of the variance in work engagement ( $F = 12.82$ ,  $p \leq 0.01$ ). The regression coefficients of negative HWI ( $\beta = -0.17$ ,  $p \leq 0.01$ ), positive HWI ( $\beta = 0.23$ ,  $p \leq 0.05$ ) and positive WHI ( $\beta = 0.12$ ,  $p \leq 0.01$ ) were statistically significant. Adding psychological meaningfulness and psychological availability to the regression equation in the second step resulted in the explanation of an additional 14% of the variance in work engagement ( $F = 19.589$ ,  $p \leq 0.01$ ). The regression coefficients of positive WHI ( $\beta = 0.17$ ,  $p \leq 0.01$ ), positive HWI ( $\beta = 0.12$ ,  $p \leq 0.01$ ), psychological availability ( $\beta = 0.19$ ,  $p \leq 0.01$ ), and psychological meaningfulness ( $\beta = 0.27$ ,  $p \leq 0.01$ ) were statistically significant.

A multiple regression analysis was carried out with Turnover Intention as the dependent variable and with negative WHI, negative HWI, positive WHI, positive HWI, psychological meaningfulness and psychological availability as the independent variables. Table 12 shows the results.

Table 12

*Multiple Regression Analyses with WHI and HWI, Psychological Meaningfulness, and Psychological Availability as Independent Variables and Turnover Intention as Dependent Variable*

	Unstandardised Coefficients		Standardised Coefficients	<i>t</i>	<i>p</i>	<i>F</i>	$\Delta R^2$
	<i>B</i>	<i>SE</i>	Beta				
1						13.33*	0.16*
(Constant)	14.94	1.26		11.84	0.00		
NWHI	0.19	0.06	0.18	2.91	0.00**		
NHWI	0.04	0.11	0.02	0.34	0.74		
PWHI	-0.36	0.10	-0.22	-3.67	0.00**		
PHWI	-0.23	0.10	-0.14	-2.34	0.02*		
2						10.79*	0.03
(Constant)	20.42	3.44		5.94	0.00		
NWHI	0.15	0.06	0.15	2.43	0.02*		
NHWI	0.01	0.12	0.00	0.07	0.94		
PWHI	-0.32	0.10	-0.20	-3.32	0.00**		
PHWI	-0.24	0.10	-0.15	-2.53	0.01**		
Psychological Meaningfulness	-0.22	0.07	-0.20	-3.02	0.00**		
Psychological Availability	0.05	0.07	0.05	0.78	0.44		

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

The results in Table 12 shows in step 1 that negative WHI, negative HWI, positive WHI, and positive HWI predict 16% of the variance in turnover intention ( $F = 13.33$ ,

$p \leq 0.01$ ). The regression coefficients of negative WHI ( $\beta = 0.18, p \leq 0.01$ ), negative HWI ( $\beta = 0.02, p \leq 0.01$ ), positive HWI ( $\beta = -0.14, p \leq 0.01$ ), and positive WHI ( $\beta = -0.22, p \leq 0.01$ ) was statistically significant. Adding psychological meaningfulness and psychological availability to the regression equation in the second step resulted in the explanation of an additional 3% of the variance in turnover intention ( $F = 10.76, p \leq 0.01$ ). The regression coefficients of negative WHI ( $\beta = 0.15, p \leq 0.01$ ), positive HWI ( $\beta = -0.15, p \leq 0.01$ ), psychological meaningfulness ( $\beta = -0.20, p \leq 0.01$ ), psychological availability ( $\beta = 0.05, p \leq 0.01$ ), and positive WHI ( $\beta = -0.20, p \leq 0.01$ ) were statistically significant whilst negative HWI ( $\beta = 0.00, p \leq 0.01$ ) was not statistically significant. Hypothesis 7 is partially accepted while Hypothesis 8 is accepted.

#### **4.4 MEDIATION ANALYSES**

To test whether psychological conditions (i.e. psychological meaningfulness and psychological availability) functioned as mediators between WHI/HWI and work engagement as well as turnover intention, mediation analyses were conducted the analytical approach of Hayes and Preacher (in press), who recommended percentile confidence intervals (CIs) as obtained through bootstrapping to measure indirect effects. Lower CIs (LCIs) and upper CI (UCIs) are reported.

Regarding the indirect effects on work engagement, the omnibus indirect effect for psychological meaningfulness was 0.03 (SE = 0.01) and the confidence interval did not include zero [95% CI = 0.01 (LCI) and 0.06 (UCI)]. Concerning the specific independent variables, the 95% CIs for three independent variables did not include

zeros, namely NWHI (effect = -0.07, SE = 0.03, LCI = -0.13, UCI = -0.01), NHWI (effect = -0.13, SE = 0.06, LCI = -0.27, UCI = -0.03) and PWHI (effect = 0.05, SE = 0.03, LCI = 0.01, UCI = 0.12).

The 95% confidence intervals for the omnibus indirect effects (and all the independent variables) for psychological availability was 0.03 (SE = 0.02) and the confidence interval did not include zero [95% CI = 0.01 (LCI) and 0.08 (UCI)]. Concerning the specific independent variables, the 95% CIs for one independent variable did not include zero, namely NHWI (effect = -0.18, SE = 0.09, LCI = -0.37, UCI = -0.01).

Therefore, NWHI, NHWI and PWHI impacted work engagement indirectly through psychological meaningfulness. The directions of the indirect effects show that employees who experience negative work-home interference and negative home-work-interference experience less psychological meaningfulness at work, which resulted in reduced work engagement. However, positive work-home interaction affected work engagement positively via its effects on psychological meaningfulness. Furthermore, negative home-work interference impacted work engagement through its effects on psychological availability.

Regarding the indirect effects on turnover intention, the omnibus indirect effect for psychological meaningfulness was -0.03 (SE = 0.01) and the confidence interval did not include zero [95% CI = -0.07 (LCI) and -0.01 (UCI)]. Concerning the specific independent variables, the 95% CIs for three independent variables did not include zeros, namely NWHI (effect = 0.08, SE = 0.04, LCI = 0.01, UCI = 0.18), NHWI

(effect = 0.15, SE = 0.08, LCI = 0.03, UCI = 0.33) and PWHI (effect = -0.06, SE = 0.02, LCI = -0.14, UCI = -0.01). The 95% confidence intervals for the omnibus indirect effects and all the independent variables for psychological availability included zeros.

Therefore, NWHI, NHWI and PWHI impacted turnover intention indirectly through psychological meaningfulness. The directions of the indirect effects show that employees who experience negative work-home interference and negative home-work-interference experience less psychological meaningfulness at work, which resulted in higher turnover intention. However, positive work-home interaction affected intention to stay positively via its effects on psychological meaningfulness.

Based on the results of the mediation analyses, Hypotheses 9 and 10 are partially accepted.

#### **4.5 CHAPTER SUMMARY**

In this chapter, the results of the empirical study were reported and discussed. Firstly, a principal axis factor analysis with direct Oblimin rotation was carried out on each of the measuring instruments to determine the factor structure of each measuring instrument. The descriptive statistics (means, standard deviations and Cronbach alpha coefficients) and Pearson's correlations were reported to determine the internal consistency and reliability of each measuring instruments and their respective items. The relationship between work-life interference and work engagement were tested and reported.

Thus the last four specific objectives are accomplished, namely to investigate the levels of work-life interference, psychological conditions, and employee engagement of employees at a uranium mine in Namibia; to study the relationships between work-life interference, psychological conditions and engagement of employees at a uranium mine in Namibia; to determine whether work-life interference predict the psychological availability, safety, meaningfulness, and engagement of employees at a uranium mine in Namibia; and to assess whether psychological meaningfulness, availability, and safety mediate the relationships between employee engagement and work-life interference of employees at a uranium mine in Namibia. Thus the last four research questions are answered.

## **CHAPTER 5**

### **DISCUSSION & CONCLUSIONS**

In this chapter, the discussion is brought forward and conclusions regarding the literature review and the results of the empirical study are made. The limitations of the research are discussed, followed by recommendations for the organisation and further research.

#### **5.1 DISCUSSION**

The general objective of the study is to investigate the relationship between work-life interference, psychological conditions, employee engagement and turnover intention in a uranium mine in Namibia. The results showed that negative home-work interference negatively impacted psychological availability. Negative work-home interference and negative home-work interference negatively impacted psychological meaningfulness while positive work-home interference positively impacted psychological meaningfulness and work engagement significantly. Psychological availability and meaningfulness were positively associated with work engagement. Negative work-home interference impacted turnover intention positively, while positive work-home interference and positive home-work interference impacted turnover intention negatively. Turnover intention was best predicted by high negative work-home interference, low positive work-home interference, low positive home-work interference and low psychological meaningfulness.

The results of this study confirm that high negative home-work interference impact psychological availability negatively (13% of the variance explained). Psychological availability indicates whether employees feel ready or confident to engage in their work roles given the fact that they are also engaged in many other life activities (Kahn, 1990; May et al., 2004). Negative home-work interference could happen if an employee's loves his or her job but there is no support from his or her family. Given the distance between the employees' work and homes it is understandable that psychological availability to engage at work is negatively associated with interference that takes place from home to work. When children are small, ill or experience difficulties when a parent is not in town, and support is not available, employees would not feel ready or confident to engage in their work.

Negative work-home interference and negative home-work interference were negatively associated with psychological meaningfulness while positive work-home interference was positively associated with psychological meaningfulness. Employees who experience psychological meaningfulness feel that they are receiving a return on investment of themselves in a currency of physical, cognitive, or emotional energy (Kahn, 1990). Therefore, a work interfering with home, a home interfering with work, and little positive interference from work to home, result in a lack of meaningfulness (10% of the variance explained).

If employees are not affected by negative home-work interference, and experience positive work-home interference and positive home-work interference, they tend to be more engaged in their work (15% of the variance explained). Furthermore, both psychological availability and meaningfulness contributed to work engagement (22%



of the variance explained). The results showed that when work-life interference is controlled for, four variables explained 29% of the variance in work engagement: These variables, in order of importance, include psychological meaningfulness, psychological availability, positive work-home interference and positive home-work interference.

The results showed that when employees experience negative work-home interference, employees would experience lower work engagement because of indirect effects via psychological availability and psychological meaningfulness. Negative work-home interference also impacted turnover intention of employees directly and indirectly (via psychological meaningfulness).

The same applies to NHWI, i.e. when a negative spillover from an employee's family to work occurs, it indirectly (via psychological meaningfulness and availability) result in lower work engagement and higher turnover intention. With regards to the career context, an example was given by Schaffer and Harrison (1998), stating that in some career paths may require an individual to travel or work abroad which puts strain on the family domain and in turn resulting the individual to feel compelled to withdraw or resign from his/her job.

The results on negative interferences from one domain to the other (i.e. home to work and/or work to home) may be related to the depletion argument by Rothbard (2001), which was drawn from the research done by Edwards and Rothbard (2000) on the resource drain perspective and from the studies done by Merton (1957) and Greenhaus and Beutell (1985) on the concept of role conflict. Depletion as explained

by Rothbard (2001) is based on the notion that an individual has only a certain fixed amount of physiological and psychological resources to disburse or make use of and that he/she normally make exchanges or substitutions in order to accommodate those fixed resources. The results are also closely linked to the strain-based conflict which argues that when strain arises in one role it makes it difficult to fulfil the needs of another role (Edwards & Rothbard, 2000; Frone, Russel, & Cooper, 1992; Greenhaus & Beutell, 1985).

Regarding positive experiences, the results showed that positive work-home interference impacted work engagement and turnover intention directly and indirectly (via psychological meaningfulness). Specific positive experiences happen at work which spill over to the home domain, and promote both meaningfulness and work engagement. These results are related to the enrichment process by Rothbard (2001), which he drew from the studies done by Sieber (1974), and Marks, (1977) on the concepts of role accumulation and multiple roles. The enrichment process suggests that engagement in one role may be related to another role. This is seen in the results of this study whereby positive spillover from one domain results in a positive outcome in the other domain. The enrichment argument implies that more role commitments can be beneficial to an individual rather than putting strain on or draining him/her (Rothbard, 2001).

More closely, psychological meaningfulness demonstrated a negative relationship between negative work-home interference and negative home-work interference. Psychological availability, on the other hand, showed only a negative relationship with negative home-work interference.

Support has been demonstrated in this study concerning the mediating effect of psychological meaningfulness and psychological availability on employee engagement which supports the notion of May et al. (2004) and Olivier and Rothmann (2007). This study shows that psychological meaningfulness and psychological availability mediates the relationship between NWHI negatively and on the other end of the continuum, PWHI, and PHWI positively towards work engagement. This implies that when PWHI and PHWI occur that an individual will feel a sense of meaning and availability at work.

According to these findings PHWI does not play such a major role in employee engagement as it does not show a relationship to psychological meaningfulness, psychological availability nor on employee engagement.

This outcome is similar to the prediction that employee engagement creates positive organisational outcomes that include, productivity, job satisfaction, motivation, commitment, low turnover intention, customer satisfaction, return on assets, profits and shareholder value (Bakker, Demerouti, & Schaufeli, 2003; Bakker, Schaufeli, Leiter, & Taris, 2008; Harter, Schmidt, & Hayes, 2002; Schaufeli & Bakker, 2004).

The results of this study confirm that psychological conditions make an important contribution to explaining the effects of positive and negative work-home and home-work interaction on employee engagement. Negative home-work interaction contributes to employees not feeling available and competent to engage in their work. Low negative work-home and home-work interactions and high positive work-home interaction contribute to the experience of psychological meaningfulness at

work, which in turn impacts employee engagement positively. Psychological meaningfulness and availability are therefore important dimensions to consider in promoting the engagement of employees in their work (Matuska & Christiansen, 2008).

## **5.2 CONCLUSIONS**

Conclusions are made regarding the specific theoretical and empirical research objectives.

### **5.2.1 Conclusions regarding the specific theoretical objectives**

The focus of this study was ultimately to establish a relationship between work-life balance and Work engagement.

Work engagement is defined as work-related states of mind which brings about positivity and fulfilment and is characterized by constructs such as vigour, dedication and absorption (Schaufeli, Salanova, Gonzalez-Roma, & Bakker, 2002). Engaged individuals will feel a sense of feeling secure in their jobs, they will be much more available to perform their jobs, and they would feel more they would find meaning in performing their jobs. These feelings may cause spillover to the family domain and other areas of the individual's life. This means that it is likely that if one feels engaged at work it might spillover to other domains of an individual's life. Since engagement is a construct of happiness one of the constructs of happiness one can conclude from Seligman (2008) that engaged individuals have increased levels of

health, decreased levels of stress, and in general they will be much more content with life than the disengaged individual.

A study was done by Harter, Schmidt, and Hayes (2002, p. 276), and they found that when employees are satisfied and engaged in their job situation, they contribute to the positive and meaningful outcomes of a business to the extent that it is important to many organizations. These outcomes may be generalised across companies.

Work-life balance was defined in the literature as seeking to obtain an optimal balance between one's work and one's life in general. Work-family conflict was defined as a form of inter-role disagreement in which the role strain from the work and family domains are equally incompatible in some respect (Greenhouse & Beutell, 1985). An extension to the study done by Grzywacs and Marks (2002), explain that one can further construe that there can be a positive as well as negative spillover from work to family as well as from family to work. Studies have shown that work-life balance and innovative programs to enhance the fulfilment of work and life responsibility can lead to substantial improvements in recruiting, absenteeism, voluntary turnover, productivity, organizational commitment and loyalty, job satisfaction, stress levels, and health care costs (Cascio, 1998; Grover & Crooker, 1995; Marshall & Barnett, 1994). A study done by Lingard, Brown, Bradley, Bailey, and Townsend (2007, p. 814) suggests that organizations that make it a priority to strategize on the work-life balance of their employees have the benefit of having employees with "...increased physical and psychological well-being, greater motivation, improved productivity, increased job commitment, and increased

involvement in home/family activities.” As a result all of these benefits contribute to a high performing organization as a whole.

A study done by Montgomery, Peeters, Schaufeli, and Den Ouden (2003) on newspaper managers in which they wanted to find out what the relationship between work-home interference was with burnout and engagement. To measure engagement, they made use of the engagement measure that was developed by Schaufeli et al (2002) which consists of three sub-scales; vigour, dedication, and absorption. They found that positive work-home as well as home-work interference was correlated with feelings of dedication. A human resource intervention which accentuates the role of resources and uses the concept of engagement to exemplify what makes successful employees function better has a greater chance of organizational acceptance (Montgomery et al., 2003).

### **5.2.2 Conclusions regarding the specific empirical objectives**

A principle component analysis was carried out on each of the measuring instruments (SWING, PCS, ES, CS, TI) and the Kaiser-Meyer-Olkin and Bartlett's test showed that the items in the respective measuring instruments were factorable. A Principle axis Factor Analysis with direct Oblimin rotation was carried out on each of the measuring instruments to determine the amount of items that could be extracted from each measuring instrument. The descriptive statistics (means, standard deviations and Cronbach alpha coefficients) and Pearson's correlations were reported. The descriptive statistics (means, standard deviations and Cronbach

alpha coefficients) and Pearson's correlations were reported to determine the internal consistency and reliability of each measuring instruments and their respective items.

The results of the study showed the following:

NWHI- when a negative spillover from one's work domain to one's family domain occurs, it will result in one finding less meaning in one's work, one will be less available at work, one will be less engaged at work, and one will be more inclined to think about resigning from one's job.

PWHI- when a positive spillover from one's work domain to one's family domain occurs, it will result in one finding more meaning in one's work, one will be more available at work, one will be more engaged at work, and will be less inclined to think about resigning from one's job.

NHWI- when a negative spillover from one's family domain to one's work domain occurs it will result in one finding less meaning in one's work, one will be less available at work, one will be less emotionally engaged at work, one will be less engaged at work and in turn one will be more inclined to think about resigning from one's job.

PHWI- when a positive spillover from one's family domain to one's work domain occurs, it will result in one finding more meaning in one's work, one will be more available at work, one will be more emotionally engaged at work, and one will be less inclined to think about resigning from one's job.

Psychological meaningfulness- when one finds meaning in one's work, one will be more available at work, one will be more emotionally engaged at work, and will be less inclined to think about resigning from one's job.

Psychological availability- when one is more psychologically available in one's work, one will be more engaged at work, and will be less inclined to think about resigning from one's job.

Employees, who are more engaged in their work, were less inclined to think about resigning from their organisation.

### **5.3 LIMITATIONS OF THIS RESEARCH**

This research had the following limitations:

- The study does not include the entire mining sector of Namibia, but rather focuses on one specific mining company.
- Another limitation is related to reliability and validity, as in such a diverse country as Namibia, within one specific company there exists a diverse workforce, made up of many cultures, norms and belief systems. Therefore, creating culturally-specific questionnaires is difficult.



## **5.4 RECOMMENDATIONS**

Next, recommendations for the organisation as well as for future research are made.

### **5.4.1 Recommendations for the organisation**

The following recommendations are made to solve the research problem:

- Firstly, managers and employees should become aware of the concepts of engagement and work-life balance and the relation of the concepts. This could help them to become aware of their own and others' engagement or disengagement and they may know what the root cause is with regards to work-life balance.
- It does not seem fruitful for management or researchers to continue to ignore the variables that may cause work-life conflict and disengagement. Consideration must be given to the varying effectiveness of changes in the environment or strategies should be implemented to prevent work-life conflict.
- Implementation of programmes directed at the attainment of a work-life balance will prove vital to the organisations and their bottom line. Such training and development programmes are necessary to ensure that employees remain healthy and competent as well as engaged.
- Lastly, the implementation of a performance management system, which is based on task agreements between managers and employees, should be investigated. If used properly, a performance management system could provide information regarding work-life balance and engagement.

### **5.4.2 Recommendations for future research**

The following recommendations for future research are made:

- Future research needs to explore the work-life balance and work engagement between the different gender roles, cultures, and hierarchy within a company. For example, different cultures, genders, job grade may cope differently in similar situations.
- The relationship between work-life balance and work engagement should be investigated in a wider variety of organisations, using larger samples.
- The results of this study suggest that further research be warranted at both the individual and the organisational level to better understand the pathways to work-life balance and work engagement.
- Research is also needed regarding work-life balance and its possible correlates in other organisational contexts, such as retail outlets, banks, public services and public and private hospitals.
- The influence of biographical characteristics such as age, gender and work experience on work-life balance and work engagement must be further researched.

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