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**Influence of Leadership Style on Employee Wellbeing:  
Exploration of the Role of Psychological Flexibility**

A thesis presented in partial fulfilment of the requirements for  
the degree of

Master of Science in Psychology

at Massey University, Albany, New Zealand

Suzanne Davies

2019

## Declaration

I declare that this thesis represents my own work, except where due acknowledgement is made, and that it has not been previously included in a thesis, dissertation or report submitted to this University or to any other institution for a degree, diploma or other qualification.



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Suzanne Davies

12 December 2019

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Date

## **Abstract**

Objective: To investigate if the relationship between leadership style and employee wellbeing (engagement, emotional exhaustion and disengagement) is moderated by psychological flexibility.

As a phenomenon, occupational wellbeing has been attracting the interest of organisations and professionals for the past 20 years. The current study explored a gap in existing research by investigating the role of psychological flexibility in employee wellbeing with a relatively un-researched sector using the Job Demands Resources (JD-R) model. Information Technology (IT) professionals in Australia were invited to participate in an online questionnaire, which explored the influence of a leader's style on burnout and engagement.

A cross sectional approach using regression was applied to determine if employee perception of a leader's style and their own psychological flexibility influenced health, engagement and burnout amongst IT professionals.

The results found that psychological flexibility did not moderate the relationship between transformational leadership and participants wellbeing. Conversely, direct effects between leadership style and wellbeing were found. Job demands in the form of transactional and passive avoidant leadership styles were positively related to emotional exhaustion. Participant reporting of transformational leadership as a job resource is reassuring, as it suggests supportive supervisory practices are a resource that positively influences employee engagement. Finding the co-existence of job demands and resources

with burnout and engagement in IT project related work provides a reason to extend wellbeing related research beyond front line industries.

## Acknowledgements

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In acknowledging research is the culmination of effort involving many people, it would not have been possible without the contribution of survey participants who provided their input, time and insight. While some may not agree with the findings, I hope this research provides insight into the challenges experienced by people employed in the gig economy, in IT project life. I am indebted to Dianne Gardner for her unrelenting support and assistance throughout the process. Dianne's wisdom, support and constructive feedback greatly improved the outcome. Her guidance in the statistical analysis, methodology and overall direction is immensely valued and appreciated. Without Dianne's positive attitude, patience and encouragement throughout, this Thesis may not have been submitted. I appreciate how fortunate I am to have a special and supportive husband whose selfless love and encouragement for the past seven years were pivotal in me completing this Thesis. Brent was always there, during the favourable and not so favourable times and while he sacrificed as much as I did, he never lost sight of our post Thesis life together and managed to maintain a

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## **Chapter 1: Introduction**

### **The Information Communications Technology (ICT) Industry**

Since its inception, the information communications technology industry has shaped the lives of individuals, organisations and their workforces globally. Today, irrespective of industry nearly everyone to some degree interacts with information technology, whether indirectly or directly. For the past 20 years, the ICT labour market has experienced rapid changes in the form of increased competition, globalisation and outsourcing practices. Employment growth in the form of increased job vacancies and number of people employed in the ICT sector is also observed. In 2019, the technical services industry was the largest contributor to employment growth in Australia (64,000 people or 6.2%) and New Zealand (14,000 or 9%) (Australian Bureau of Statistics, 2019; NZTech, 2019). Emerging technologies have driven change in the form of organisations striving to respond to ever changing consumer demands and expectations for 24-hour access to responsive, cost effective digital solutions. (NZTech, 2019).

Demand for real time, innovative digital services has seen the ICT industry under increasing pressure to perform and deliver in “always on” highly available environments. Thus, employees work long hours, experience work life balance challenges and exhaustion (Hetland, Sandal, & Johnsen, 2007). Against these changes and growth, it is easy to see that organisations seek to adjust the way technical solutions are delivered and supported, requiring new skills and different ways of working. Since 2016, the most commonly favoured management practice

by a third of Australian business has been to implement digital technologies using contracted external consultants (Australian Bureau of Statistics, 2019). As freelance workers offer organisations the ability to flexibly scale up and down on a project by project basis, contractors with specialist skills tend to be recruited for project-based assignments. While freelance contract work can be financially rewarding, motivating, offer workplace flexibility and be psychologically fulfilling, project assignments can expose individuals to a multitude of workplace demands and stressors. Unreasonable deadlines, changing priorities, multiple reporting lines, role uncertainty and delivering 24/7 on call support are some of the challenge's employees in IT project roles face. These demands reveal key sources of stressors that have important implications for organisations, employers and individuals to consider. To date, little attention has been paid to exploring the sources of stress and the associated psychological outcomes experienced by employees in ICT project work. While studies find that certain levels of stress, known as eustress, favourably influences employee performance and psychological wellbeing; high levels of stress can detrimentally influence employee performance and wellbeing (Sarada & Ramkumar, 2015). Given the amount of time dedicated in a person's life to work, and the detrimental effects associated with low job satisfaction and occupational related stress, it is important to understand the work-related factors that influence employee wellbeing.

## **Employee Wellbeing**

Since the 1980's the concept of occupational wellbeing has received a lot of research within the psychological, medical, business and social sciences. The damaging health effects associated with diminished employee wellbeing outcomes have been linked to cardiovascular events, depression and burnout. Occupational burnout is also shown to lead to diminished productivity, absenteeism, anxiety, depression and maladaptive employee behaviours (Bakker, van Emmerik & van Riet, 2008; Hakanen, Maslach, Schaufeli & Leiter, 2001; Hakanen, Schaufeli & Ahola, 2008; Schmidt, Loerbroks, Herr, Litaker, Wilson, Kastner & Fischer, 2014).

According to the Australian Public Service Commission (2018), organisations must take all reasonable measures to safeguard and enhance the health and psychological wellbeing of employees. However, evidence associates prolonged exposure to job demands with stress related illness (Hakanen, Schaufeli & Ahola, 2008; Lovelace, Manz & Alves, 2007). Recent research identified that over 120,000 employee deaths annually are attributable to occupational stress in American organisations (Goh, Pfeffer & Zenios, 2016). In Australia and New Zealand, individuals experiencing unrealistic time pressures, role uncertainty, low support and control are identified as having poor wellbeing outcomes (Australian Public Service Commission, 2018; WorkSafe, 2019). Active, supportive leadership was cited as a key factor in reducing the occurrence of work-related psychological injury (Australian Public Service Commission, 2018; WorkSafe,

2019). Research by WorkSafe (2019) into psychosocial health in New Zealand identified that work-related stress was influenced by personal and organisational factors. Findings revealed that sustained exposure to psychosocial work stressors was related to physical injuries, physiological conditions and psychological disorders (WorkSafe, 2019). More specifically, poor psychosocial work environments and leadership styles were identified as key factors influencing absenteeism, high turnover, intention to leave and employee dissatisfaction (Wellness in the Workplace, 2015; WorkSafe, 2019).

The economic effects related to occupational ill health in Australia and New Zealand have been costly (Australian Public Service Commission, 2018; Wellness in the Workplace, 2015). Work related psychological strain is linked with increased costs, high turnover rates, sick leave, reduced productivity and an increase in compensation claims (Australian Public Service Commission, 2018; Gallup, 2014; Bourke, 2015; Wellness in the Workplace, 2015). American research cites that approximately five to eight percent of annual health care costs are related to work related stress, costing employers \$300 billion per annum (Gallup, 2014). Nonetheless, studies exploring a single wellbeing construct like stress or burnout focusing on illness, disease and weakness ignore the idea of human potential. In neglecting the positive and motivational components of wellbeing, the opportunity for understanding the underlying factors that influence healthier outcomes is lost (Seligman & Csikszentmihalyi, 2000). Compared with stress and burnout research only moderate attention has been paid to motivational

constructs like engagement. Employee engagement is found to positively influence organisational outcomes that are associated with enhanced employee performance and health (Gallup, 2013; Hakanen, Schaufeli & Ahola, 2008; Simpson, 2009). To advance our understanding of employee health and wellbeing, research would be enriched by simultaneously investigating both demanding and motivational work-related factors.

### **Influences on Employee Wellbeing 99**

Irrespective of industry, high work demands in the form of time pressures, poor leadership practices and role uncertainty and limited access to specialised skills, time, human and financial resources are found to place additional burden on employees (Hetland, Sandal & Johnsen, 2007; Pinto, Patanakul & Pinto, 2016). The mainstream discourse on employee health and wellbeing has focused on occupational roles in the social services, healthcare, education and hospitality sectors (Karatepe & Olugbade, 2009; Lamb & Cogan, 2016; Mauno, Kinnunen & Ruokolainen, 2007). While all research into employee wellbeing offers valuable insight into the workforce demands placed on individuals, few have studied the issue of employee psychological health in non-front-line occupations, involving more interaction with data, systems, and technology than people.

As individuals differ in their levels of psychological health, caution is needed in generalising research into employee wellbeing beyond the populations studied. While some wellbeing research has included stable, front-line sectors such as call centres, retailing, health and hospitality, little has extended to sectors

beyond this (Broadridge, 2002; Hetland, Sandal & Johnsen, 2007; Rutherford, Hamwi, Friend & Hartmann, 2011). Researching only stable, permanent, people orientated, frontline industries provides a distorted view of organisational settings and the various demands experienced by more transient, temporary, technically focused industries (Atkinson, Crawford & Ward, 2006; Tyssen, Wald & Spieth, 2013).

High consumer demands and increased business pressures, alongside technological advancement have led to organisations recruiting transient, specialised teams to step in and transition businesses (Australian Bureau of Statistics, 2019). Meeting the needs of today's fast paced business environments has led to project management becoming a normative business function for most organisations (Becker & Smidt, 2015). While most jobs incur wellbeing challenges to varying degrees, those encountered by professionals employed in Information Technology (IT) project work are known to be high (Syrek, Apostel & Antoni, 2013). Project based, occupational demands tend to be in the form of high stakeholder expectations, time pressures, budget constraints, resource shortages and work life balance conflicts (Richmond, & Skitmore, 2006).

Working in project-based occupations can be rewarding as well as demanding. As with frontline occupations, the job-related rewards and demands associated with IT project work are linked to an employee's psychological wellbeing. All work settings high in demands and low in resources are found to influence ill health and the development of dysfunctional coping strategies.

Reducing job related demands and increasing personal and organisational resources can positively enhance an employee's coping mechanisms for handling the everyday strains association with their roles.

In examining burnout in the IT sector, Hetland, Sandal & Johnsen (2007), found that most leaders are in positions to modify work related variables that affect stress and burnout. Interestingly, most research investigating burnout beyond the health care and teaching sectors has neglected leadership as an important variable affecting job related wellbeing, burnout and engagement. This is concerning, as effective leaders are found to be important contributors to creating psychologically healthy workplaces (Breevaart, Bakker, Hetland, Demerouti, Olsen and Espevik, 2014).

While project work can be demanding, uncertain and complex (Gallstedt, 2003), its goal and time driven, multitasking emphasis can also be appraised as motivating, challenging and engaging (Gallstedt, 2003; Rich, Lepine & Crawford, 2010). In exploring how various situational work conditions influence employee burnout and engagement Rich, Lepine & Crawford, (2010), found that while the relationship between job demands and burnout was positive, the relationship between demands and engagement varied depending on the psychological response. Employee appraisals of job demands as a hindrance were positively related to burnout and negatively related to engagement. Conversely, job demands appraised as challenging were negatively related to burnout and positively to motivating outcomes like engagement. This implies that job demands differ in

type and should not be generalised to inducing only detrimental health outcomes. Likewise, the relationship between job demands and wellbeing outcomes like engagement appears to be influenced by an individual's psychological characteristics (Salanova, Del Libano, Llorens & Schaufeli, 2014). As Kahn (1990) contended employee engagement is an outcome influenced by the interactive effect of the work environment and individual psychological conditions. Common to these views is the claim that employee wellbeing outcomes like burnout and engagement may be influenced by the situational context and personal characteristics like psychological competency, self-efficacy, motivation and proactivity (Kuo et al., 2017; Salanova, Del Libano, Llorens & Schaufeli, 2014; Xanthopoulou, Bakker, Demerouti & Schaufeli, 2007; Xanthopoulou, Bakker, Demerouti & Schaufeli, 2009).

### **Supervisory Influences**

When organisations and professionals seek initiatives to buffer the effects of job-related stressors and strains, they tend to focus on time and finances and view employees as responsible for their own welfare. Unfortunately, the human element of leadership as a situational resource or demand is often overlooked. Organisations confronted with employees experiencing job strain should remain cognisant that employers, supervisors and health professionals have a responsibility to minimise workplace stressors particularly in high demand roles, which are low in social support and resources.

The personal cost of demanding leadership practices is evident in research

conducted by Safe Work Australia, (2019). Employees reporting low levels of supervisory support are twice as likely to experience stress than individuals reporting higher levels of support (Safe Work Australia, 2019). Another workplace wellness study found 70% of employee engagement was related to good leadership practices (Gallup, 2013). Furthermore, engaged employees were 30% more likely to participate in organisational wellbeing initiatives. Unlike their disengaged colleagues, engaged employees were twice as likely to discuss their wellbeing with their supervisor (Gallup, 2014). Thus, research, supports the view that supervisory support buffers the adverse effects of workplace demands.

### **Rationale for the Study**

Little is known about employee wellbeing in Australasia for IT professionals. Evidence for supervisory support positively influencing wellbeing outcomes suggests employee engagement could be increased by a decrease in workplace demands and the availability of resources (Hakanen, Perhoniemi & Toppinen-Tanner, 2008). The relationship between workplace demands and emotional exhaustion and disengagement suggests an employee's perception of ineffective leadership behaviours more detrimentally influences wellbeing outcomes than supportive resources.

While most research finds a positive relationship between an employee's perception of effective leadership and their wellbeing, there is limited research simultaneously exploring the relationship between perceived effective and ineffective leadership styles on employee wellbeing. Furthermore, little to no

research exists exploring the relationship between leadership styles and employee wellbeing with a personal resource, such as psychological flexibility as a moderating factor. While, psychological flexibility has largely been explored as a capability within Acceptance and Commitment Theory, less is understood about the influence of psychological flexibility as a resource within the JD-R model.

Psychological flexibility is a personal resource that allows an individual to adapt to various changes and demanding situational events (Novaes, Ferreira & Valentini, 2018). A key objective is to demonstrate that the strength of the relationship between a leader's style and employee wellbeing will be moderated by psychological flexibility. Therefore, employees with higher levels of psychological flexibility who perceive ineffective leadership practices will have less burnout and higher engagement, than employees with lower levels. Central to this is the idea that psychological flexibility may buffer against emotional exhaustion and disengagement when employees perceive ineffective, demanding leadership practices. It is expected that demanding (ineffective) as opposed to resourceful (effective) leadership practices will have a detrimental effect on employee burnout and engagement. It is also predicted that irrespective of leadership style employees higher in psychological flexibility will have lower levels of emotional exhaustion and disengagement, and more engagement, than employees low in psychological flexibility.

As most wellbeing research has focused on people-facing, frontline industries, this study explores psychological health outcomes in a lesser studied,

non-frontline industry. Thus, the wellbeing of IT professionals, working in high-demand, transient roles will be explored. As most IT solutions are largely delivered via projects, wellbeing will be investigated in project-based work. In capturing the perception of IT professionals in project work, this study hopes to extend current JD-R, leadership and wellbeing research beyond frontline occupations.

The researcher's interest in employee wellbeing for professionals working in IT projects stems from 20 years of IT Project and Change Management experience. This project related experience includes supporting individuals to manage the risks associated with operating in a highly demanding, low resource industry. The ability for IT professionals to manage the psychological health hazards associated with multiple reporting relationships, conflicting stakeholder expectations and the complex nature of IT project work has been observed as critical for them to achieve positive wellbeing outcomes. Where individuals have been unable to manage the demands associated with ineffective leadership practices in project-based work, a prevalence of stress, burnout and disengagement has been witnessed. This view is supported by others who identified a link between passive leadership behaviours, high levels of burnout and employee involvement in the IT sector (Hetland, Sandal & Johnsen, 2007: Yang, Huang & Wu, 2011).

It is hoped that findings will help identify the influence a situational demand like perceived poor leadership has on burnout (emotional exhaustion and

disengagement). Understanding how an employee's access to resources may buffer against perceived leadership demands and enhance wellbeing, is an important motive for conducting this research. In terms of promoting wellbeing, it is suggested organisations will benefit from enhancing the supervisory experiences of their employees, especially as the perception of a leader's behaviour is found to influence the psychological health of professionals in IT project-based work (Hetland, Sandal & Johnsen, 2007).

### **Purpose of the Study**

Drawing on the Job Demands-Resources (JD-R) model, the goal of this study is to explore if the relationship between leadership style, burnout (emotional exhaustion and disengagement) and engagement is moderated by psychological flexibility in IT project work.

The research also seeks to explore if the relationship differs between effective (transformational, transactional) and ineffective (passive avoidant) leadership styles. Employee wellbeing will be determined by low burnout (emotional exhaustion and disengagement) and high engagement.

## **Chapter 2: Employee burnout, wellbeing and the Job Demands-Resources model**

Exploration of the trends in occupational wellbeing definitions indicates a gradual shift from a focus on human weakness, limitations and malfunction towards a more positive approach, which concentrates on psychological strengths, optimal human functioning and wellbeing (Seligman and Csikszentmihalyi, 2000, Schaufeli, Salanova, González-Roma, Bakker, 2002). To more comprehensively understand employee wellbeing, this study explores favourable and less favourable responses to work demands. The less favourable, more harmful response is conceptualised as burnout, measured here as emotional exhaustion and disengagement. Research has found that employees exposed to stressful work situations, with low job resources and high demands, can become emotionally exhausted and disengaged (Bakker & Demerouti, 2007; Schaufeli, 2015; Schaufeli & Bakker, 2004b). The more positive form of wellbeing is conceptualised as employee engagement. Individuals who have satisfying work situations with high resources and low job demands tend to be involved and engaged in their work content (Bakker & Demerouti, 2007).

### **Burnout**

Originating in the human service sector, work related burnout was conceptualised as a state of mental weariness (Maslach & Leiter, 1997; Schaufeli & Bakker, 2004b). While most define occupational burnout as involving emotion exhaustion and a pessimistic mindset towards work, burnout has been

operationalised in different ways. For some, three dimensions are used: emotional exhaustion, cynicism and reduced self-efficacy (Maslach & Leiter, 1997; Maslach, Schaufeli & Leiter, 2001; Schaufeli & Bakker, 2004a). Emotional exhaustion can be viewed as the first stage of burnout and as such is included as a central measure (Onwezen, van Veldoven & Biron, 2012). Thus, emotional exhaustion can provide a core marker for intervention (Bakker & Demerouti, 2007; Maslach, Schaufeli & Leiter, 2001).

In providing an alternative measure that encompasses the physical, cognitive and emotional aspects of exhaustion, Bakker & Demerouti (2007) added disengagement as a dimension of burnout. Burnout occurs when employees score high on emotional exhaustion and disengagement. Emotional exhaustion is the outcome of prolonged exposure to high job demands, leading to physical, emotional and cognitive strain (Bakker & Demerouti, 2007). Disengagement is the response of employees who identify their work and its content as unchallenging, unpleasant and uninteresting, and who distance themselves from their work (Demerouti & Bakker, 2008). This study conceptualises burnout as encompassing both emotional exhaustion and disengagement (Demerouti, 1999).

Earlier research was grounded on the view that burnout was mostly evident in employees working with patients and students (Hetland, Sandal, and Johnsen, 2007; Maslach & Leiter, 1997; Xanthopoulou, Bakker, Dollard, Demerouti, Schaufeli, Taris & Schreurs, 2007). Today, burnout is a recognised phenomenon that exists amongst employees in a wide range of sectors and which leads to a

broad range of physical, psychological and organisational challenges (Bakker, van Emmerik & Van Riet, 2008; Hetland, Sandal & Johnsen, 2007). Research into having experienced moderate to severe work-related burnout (Australian Psychological Society, 2014). Individuals suffering stress and burnout related illnesses were found to be taking 20 million sick days per annum and to be costing Australian employers \$10.11 billion. In 2013, the overall cost to the Australian economy was estimated at \$14.81 billion (Safe Work Australia, 2013). Work-related psychological stress increases the probability of burnout, anxiety or depression, and work-related illness or injuries (Safe Work Australia, 2013). Employees experiencing burnout may be more likely to develop cardiovascular events, respiratory infections and reduced neuroendocrine functioning (Lyons & Chamberlain, 2012). Organisational impacts include low levels of employee engagement, reduced performance, diminishing job satisfaction, increased absenteeism and higher turnover rates (Bakker & Demerouti, 2008; Goh, Pfeffer & Zenios, 2016; Safe Work Australia, 2013).

### **Employee Engagement**

Occupational engagement is a concept used to describe a positive, satisfying state of mind, encompassing vigour, dedication and absorption (Bakker & Demerouti, 2007; Demerouti, Bakker, Vardakou & Kantas, 2003; Maslach, Schaufeli & Leiter, 2001; Schaufeli et al., 2002). While some view engagement as the opposite of burnout (Maslach & Leiter, 1997), others operationalise it as an independent multidimensional construct which is negatively related to burnout

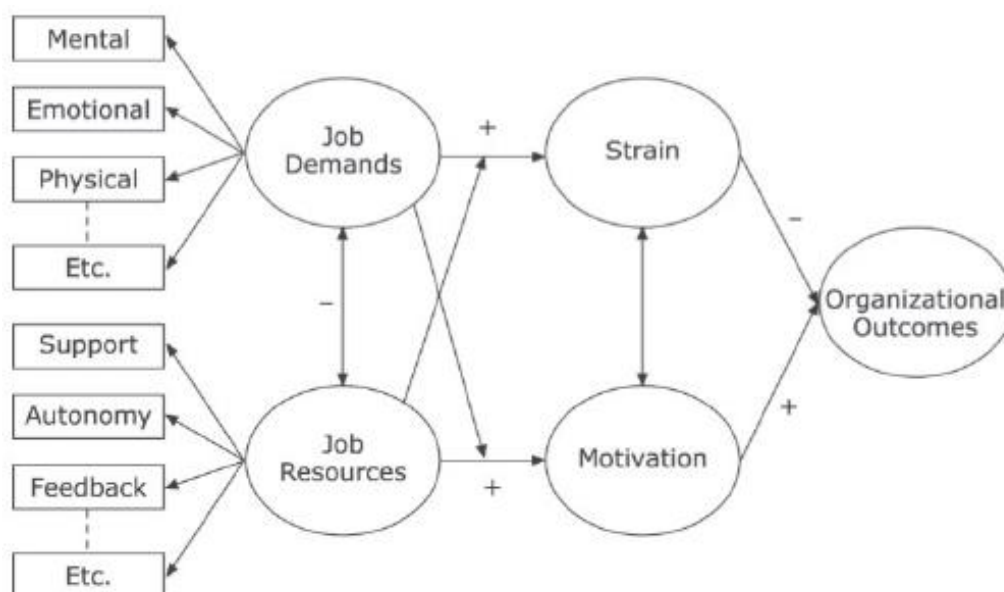
(Demerouti, Bakker, Vardakou & Kantas, 2003; Schaufeli et al., (2002). Employee engagement is negatively related to employee emotional exhaustion and disengagement (Schaufeli and Bakker (2004a). Therefore, employees with higher levels of engagement are less likely to experience burnout (Bakker & Demerouti, 2007).

In this study employee engagement is defined as a persistent, positive, fulfilling state of mind, encompassing vigor, absorption and dedication (Bakker & Demerouti & 2007). In defining occupational engagement as an employee being positively motivated and attached to their work, engagement is positioned as a discrete entity, and more than just the absence of, or converse of burnout. Vigor is characterised by high levels of energy and motivation an employee invests at work. Absorption is described as a person being so engrossed in their work; time rapidly passes by. Dedication refers to a person's strong identification with and enthusiasm for work, as well as a sense of pride and inspiration. Vigor, dedication and absorption are negatively related to burnout (Hawkes, Biggs & Hegerty, 2017). Therefore, higher levels of engagement should not be taken as being representative of burnout.

### **The Job Demands and Resources Model**

Central to occupational health psychology is the notion that workplace attributes influence employee wellbeing. Developed by Demerouti, Bakker, Nachreiner & Schaufeli in 2001, the Job Demands-Resources (JD-R) model proposes that while all roles have specific strains and stressors, all work

environments contain two variables that affect employee wellbeing: job demands and job resources (Schaufeli & Bakker, 2004b). Job demands are the physical, psychological, organisational and social job factors requiring sustained physical and psychological effort, which incur physiological and psychological costs (Xanthopoulou, Bakker, Demerouti & Schaufeli, 2007). The physical, social and organisational factors that serve to enhance personal growth and development, help to achieve work related goals, and are effective at reducing job demands are classified as job resources (Xanthopoulou, Bakker, Demerouti & Schaufeli, 2007; Xanthopoulou, Bakker, Demerouti & Schaufeli, 2009).



**Figure 1.** The JD-R Model (Source Demerouti, Bakker, Nachreiner & Schaufeli, 2001)

The JD-R model grew out of earlier models which proposed that psychological strain is the result of an imbalance between high job demands and

specific resources. For example, the demand-control model (DCM) model argues that occupational strain is the result of high job demands like work overload, time pressures and role conflict, and low job control, or employees' autonomy to control their work tasks (Karasek, 1979). By the late 1980's the DCM had incorporated social support, and the Demand Control-Support (DCS) model was developed (Johnson, and Hall, 1988). The DCS model argues that job support functions as a buffer against high strain and low job control. As such, employees in roles with high job demands, low autonomy (decision latitude, authority & skill level) and low social support are at risk of job strain and poor psychological wellbeing (Bakker & Demerouti, 2007; Karasek, 1979, Johnson, and Hall, 1988).

An alternative model draws on the notion of reciprocity. Siegrist (1996), developed the effort-reward imbalance (ERI) model. The ERI model advocates that job strain exists when the equilibrium between an employee's perception of effort and reward in the workplace is disrupted (Allisey, Rodwell & Noblet, 2016; Bakker & Demerouti, 2007). While the DCM, DCS and ERI models are easy to understand and have plenty of empirical evidence to support them (Karasek, 1979; Allisey, Rodwell & Noblet, 2015; van Der Doef & Maes, 1999) each model fails to acknowledge the interactions between employee capabilities, emotions, behavioural responses and individual differences. From a theoretical and practical standpoint, cross-sectional research applying the DCM and DCS models fails to specify causal outcomes of the relationship between work characteristics and wellbeing (van Der Doef & Maes, 1999). More importantly, many of the predictor

variables are not generalizable to a wide range of occupational role types (Bakker & Demerouti, 2007; van Der Doef & Maes, 1999). For instance, while client, student and patient interaction may be key job demands for the counselling, teaching and health sectors, other occupational groups like manufacturing and management may find time pressures, workload and leadership practices as central stressors to their roles. In the way occupational demands vary across sectors, so do the corresponding types of control and support needed to buffer or offset the job-related demands. Thus, it becomes important to accurately conceptualise the demands specific to a role or work situation.

The JD-R argues for a range of resources which can lessen the damaging health effects of demands and facilitate goal attainment (Bakker & Demerouti, 2007; Demerouti et al., 2001; Schaufeli & Bakker, 2004b). It is consistent with other models, as autonomy, social support and other factors can be seen as personal resources which buffer against job strain (Bakker, & Demerouti, 2008). The JD-R model is therefore both rigorous and flexible (Bakker & Demerouti, 2007; Demerouti et al., 2001; Xanthopoulou, Bakker, Demerouti & Schaufeli, 2007). As Koeske and Koeske (1989) found, burnout is influenced by a range of job demands and environmental and individual resources (Bond, Flaxman van Veldhoven & Biron, 2010; Breevaart, & Bakker, 2018; Gilbreath & Benson, 2004). Numerous studies have applied the theoretical framework of the JD-R model to explore how job demands and resources influence employee wellbeing and performance (Bakker & Demerouti, 2007; Demerouti, Bakker et al., 2001;

Upadyaya, Vartiainen, Salmela-Aro, 2016; Schaufeli & Bakker, 2004). Substantial support has been found for the model across industries and situations (Demerouti et al., 2001; Llorens, Llorens, Bakker, Schaufeli & Salanova, 2006). Some longitudinal studies also provide strong support by demonstrating that job and personal resources can buffer the relationship between job demands, burnout and engagement over time (Bakker & Demerouti, 2007; Xanthopoulou, Bakker, Dollard, Demerouti, Schaufeli, Taris, & Schreurs, 2007).

Project work in the IT sector is fast-paced, cost focused and competitive, with high workloads. Time pressured, resource constrained conditions create demands that can detrimentally influence wellbeing (Hetland, Sandal & Johnsen, 2007; Pinto, Dawood & Pinto, 2013; Pinto, Patanakul & Pinto, 2016). However, such work can also be motivating, challenging and engaging (Gallstedt, 2003; Rich, Lepine & Crawford, 2010). In general, the relationship between job demands and burnout tends to be positive. However, the relationship between demands, burnout and engagement varies on an employee's psychological response (Rich, Lepine & Crawford, 2010). Employee appraisals of job demands as a hindrance were positively related to burnout and negatively to engagement (Schaufeli & Bakker, 2004b)). Conversely, job demands appraised as challenging were negatively related to burnout and positively to motivating outcomes like engagement. This implies that job demands differ in type and should not be generalised to inducing only detrimental health outcomes. It also suggests the relationship between job demands and employee engagement may be influenced

by an employee's psychological characteristics (Salanova, Del Libano, Llorens & Schaufeli, 2014). As Kahn (1990) contends, employee engagement is influenced by the interactive effect of the work environment and individual psychological conditions. Common to these perspectives is the view that employee burnout and engagement are influenced by the situational context and personal characteristics like psychological appraisal and competency (Rich, Lepine & Crawford, 2010; Kahn, 1990; Salanova, Del-Libano, Llorens & Schaufeli, 2014; Salanova, Xanthopoulou, Bakker, Demerouti & Schaufeli, 2010).

The present study will look at leadership, the focus of the next chapter, in relation to demands and resources at work. Applying the JD-R model to leadership and occupational wellbeing builds on the evidence of a strong relationship between a supervisor's leadership practices and employee psychological health (Hawkes, Biggs & Hegerty, 2017; Perko, Kinnunen, Tolvanen & Feldt, 2016). In understanding the ways in which employees' psychological health is influenced by leadership styles, organisations can start to shape wellbeing.

## **Chapter 3: Leadership and wellbeing**

The relationship between leader behaviours and employee psychological wellbeing has long been a topic of interest, resulting in an abundance of scholarly research (Dionne, Gupta, Sotak, Shirreffs, Serban, Hoa, Kim, Yammarino, 2014; Eberly, Hernandez & Avolio, 2013). Despite the evidence of a relationship between leadership and wellbeing, greater understanding is required to increase employee engagement and reduce burnout in occupational settings. Research drawing on the JD-R has found a reliable relationship between leadership styles and occupational wellbeing (Perko, Kinnunen, Tolvanen & Feldt, 2016), yet policy makers, executives, and other professionals need to understand the factors that influence the relationship between leadership practices and occupational burnout and engagement (Allisey, Rodwell & Noblet, 2016; Aasland, Skogstad, Morten, Nielsen & Einarsen, 2010; Bakker & Demerouti, 2007; Grawitch, Gottschalk & Munz, 2006). This section starts by defining leadership, then summarises some leadership theories and models. In line with the JD-R model, different leadership styles are explored in relation to work demands, resources and employee wellbeing.

### **Defining Leadership**

Despite the proliferation of research, developing a single leadership construct has proved elusive (House & Aditya, 1997). Some define leadership as the use of non-coercive influence in the attainment of group goals, a collection of positive qualities aligned to people who successfully influence others (Jago, 1982)

and the ability to get people to work collaboratively and persuade others towards a larger agenda (Kotter, 1995). Others describe it as a process where an individual mobilises people through constructive or adaptive change to accomplish objectives, with the intent of creating a more cohesive organisation, without violating the rights of others (Bass, 1990; Kotter, 1995; Sivasubramaniam, Murry, Avolio & Jung 2002; Yukl, 2012). In this way, leadership is constructed as an exceptional phenomenon involving the activation of special thinking, skills, tools and capabilities. Constructing leadership as some special, positive experience neglects the possibility of it being an everyday, mundane occurrence, as an integrative process or as influencing detrimental outcomes (Aasland, Skogstad, Notelaers, Nielsen & Einarsen, 2010; Eberly, Hernandez & Avolio, 2013; Perko, Kinnunen, Tolvanen & Feldt, 2016). Furthermore, most leadership research tends to overlook the influence of individual and situational considerations. However, there are some who examine the more interactive, routine and less active dimensions of leadership. Bass, (1990) conceptualises leadership as a “universal phenomenon” and aligns with Kotter’s (1995) position of leaders as change agents. Bass (1990) characterises leadership as a transformational change process, where a person motivates competencies in another group member or members.

### **Leadership Theories and Models**

While explanations of what constitutes the core constructs of effective and ineffective leadership are vast, and varied (May, Wesche, Heinitz & Kerschreiter, 2014), many have defined leadership styles in terms of “heroic” leader traits and

behaviours (Bardes & Piccolo, 2010; Einarsen, Aasland, & Skogstad, 2007). As effective leadership is applicable to most contexts, exploring it in terms of traits and behaviours could be appealing (Thoroughgood, Padilla, Hunter & Tate, 2012). Although useful, positioning leadership in terms of “heroic” traits and behaviours assumes that less heroic leadership leads to damaging outcomes and fails to consider factors like individual, group processes and other situational factors, (Thoroughgood, Padilla, Hunter & Tate, 2012; Yukl, 1997). In addition, there are diverse views on the characteristics and skills that differentiate non-leaders from leaders. Researchers have progressed from seeking stable, individual characteristics and behaviours that distinguish individual leaders, to group level analyses encompassing team and collectivist theories (Dionne et al., 2014). Further analysis exposes the growth of interest in emotion based and charismatic leadership. Some writers suggest that all leadership theories share what is termed the locus and mechanism of leadership, where locus refers to the origin of leadership and mechanism represents how leadership is indirectly and directly transmitted, in the form of traits, cognitions, behaviours, communicated values or the emotions expressed by leaders (Einarsen, Aasland & Skogstad, 2007; Elberly, Hernandez, & Avolio, 2013; Gregersen, Hoper & Nienhaus, 2014).

Although new theories are constantly emerging, an alternative view of leadership challenges the notion of leadership as largely a heroic, unidirectional, active practice. These perspectives risk positioning leadership as the absence of passive leadership behaviours (Einarsen, Aasland & Skogstad, 2007; Nielsen,

Skogstad, Matthiesen & Einarsen, 2016). Perceiving leadership as multidimensional, including active, inactive and avoidant processes, allows an understanding of the interactive effects of different practices and outcomes (Nielsen, Skogstad, Matthiesen & Einarsen, 2016). For this reason, this study assumes a multi-dimensional approach by examining both active and passive forms of leadership.

Since the late 1990's, interest in leadership as multidimensional and transformative has grown exponentially. A dominant multi-dimensional leadership model is the Full Range Leadership Model (FRLM). Developed by Bass and Avolio (1994), the FRLM centres on three leadership styles: transformational, transactional and laissez-faire or passive-avoidant leadership. Unlike leadership models that emphasise rational, decision making processes, the FRLM focuses on the people and task side of leadership and maintains that a leader's style is expressed as a set of unique traits, behaviours, emotions and values (Bass & Riggio 2006; Vroom & Yetton, 1973).

### **Transformational, Transactional and Passive Avoidant Leadership**

Transformational leadership is perceived as a persuasive, mobilising, transparent process, where individuals positively influence employee behaviour, team and organisational performance (Bass, 2010; Bass & Riggio, 2006; Fernet, Trepanier, Austin, Gagne & Forest, 2015). Transformational leaders seek to empower employees and enhance morale and motivation as well as individual and team performance (Avolio & Bass, 2004; Perko, Kinnunen, Tolvanen & Feldt,

2016). Transformational leaders are described as visionary, intellectually stimulating people who inspire a climate of trust and motivate employees towards common goals (Bass & Avolio, 1994; Keegan & Den Hartog, 2004). Transformational leadership is defined as charismatic, visionary, and inspirational actions that motivate employees (followers) to be proactive, goal orientated and perform beyond expectations (Bass, 1985; Bass & Avolio, 1994; Dvir, Eden, Avolio, & Shamir, 2002). In this sense, successful leadership is defined as a supervisor's ability to adapt their approach according to the situation, to motivate and influence followers to perform beyond their expectations (Bass, 1985; Hersey & Blanchard, 1996; Breevaart et al., 2014). A longitudinal leadership study found teams led by transformational leaders identified as having a clear purpose and collective vision were collaborative and demonstrated personal sacrifice for the collective good of the group (Sivasubramaniam et al., 2002). Individuals who adopt transformational leadership behaviors are found to have higher performing teams, are usually well respected by their subordinates and are more engaged (Breevaart & Bakker, 2018; Breevaart et al., 2014). Employees with inspirational, supportive supervisors tend to be more motivated and engaged employees who develop a strong identification with their leader (Avolio & Bass, 2004; Breevaart et al., 2014; Keegan & Den Hartog, 2004; Perko, Kinnunen, Tolvanen & Feldt, 2016). Evidence supports a positive relationship between transformational leadership practices and employee engagement (Bass, 1985; Bass & Avolio, 1994; Fernet et al., 2015; Perko, Kinnunen, Tolvanen & Feldt, 2016). Conversely,

transformational leadership is found to negatively correlate with stress and burnout (Breevaart et al., 2014). While Fiedler (1967), asserts that effective leadership is due to individual personality and favourable situational factors, others assert that the people orientated characteristics associated with transformational leadership are key to good leadership (Kotter, 1995; Avolio & Bass, 2004; Thite, 2000).

Like transformational leadership, transactional leadership is described as comprising a range of behaviours that lead to varying employee outcomes (Breevaart et al., 2014). Where transformational leadership is described as relationship oriented, transactional leadership is identified as more task and process oriented. Some argue that transactional leadership is a pre-condition for transformational leadership (Avolio & Bass, 2004; Hinkin & Schriesheim, 2008). Employees perceiving transactional leadership experience reward contingent on achieving specific tasks and are subjected to processes and rules that maintain control to help prevent mistakes from occurring (Breevaart et al., 2014; Epitropaki & Martin, 2005). The distinction between transformational and transactional leadership has been compared to the distinction between leadership and management. Management practices are said to aim for consistency and order through the application of controlling, planning and organising skills (Kotter, 1990). In contrast, effective leadership practices involve the application of soft skills, vision, charisma and the ability to align people with inspiring visions of the future (Fiedler, 1967; Kotter, 1990; House & Aditya, 1997; Gregersen, Hoper, &

Nienhaus, 2014; Perko, Kinnunen, Tolvanen & Feldt, 2016). Despite having lower inspirational appeal and more emphasis on process, transactional leadership can be evaluated by employees as an effective leadership approach (Avolio & Bass, 2004). In summary, transactional and transformational leadership are positively associated with good leadership, employee engagement, wellbeing and organisational commitment (Breevaart et al., 2014; Epitropaki & Martin, 2005; Zwingmann, Wegge, Wolf, & Rudolf, Schmidt & Richter, 2014a).

Passive avoidant leadership, also known as laissez-faire leadership, is defined as a less active form of leadership encompassing passive avoidant behaviours, and is often perceived as the least effective of the three leadership styles (Bass, 2010; Bass & Avolio 1994; Erickson, Shaw Murray & Branch, 2015; Skogstad, Einarsen, Torsheim, Aasland & Hetland, 2007). Passive avoidant leaders tend to only get involved when events take a turn for the worst, allow employees to make their own rules allow employees to have a larger voice in decision making (Bass & Avolio, 1994) Some position passive avoidant leadership as a lack of leadership or as a zero-leadership style (Bass & Avolio, 1994; Sivasubramaniam et al., 2002). Unlike transformational and transactional styles, passive avoidant leadership is associated with less active behaviours and varying psychological outcomes (Avolio & Bass, 2004; Barling & Frone, 2016; Hetland, Sandal & Johnsen, 2007; Kanste, Kyngas & Nikkila, 2007). Passive avoidant leaders are those who unsystematically respond to situations, avoid providing goals and standards for employees to attain, and are less actively

involved (Avolio & Bass, 2004; Barling & Frone, 2016). While some positively associate passive avoidant leadership with a sense of personal accomplishment, passive avoidant leadership has also been positively related to employee stress (Avolio & Bass, 2004; Barling & Frone, 2016; Kanste, Kyngas & Nikkila, 2007; Morrison, Jones & Fuller, 1997). A growing evidence base shows that passive leadership contributes to work-related stressors and is negatively related to important organizational and personal outcomes (Barling & Frone, 2016; Hetland, Sandal & Johnsen, 2007). In demanding job contexts, passive-avoidant leadership is related to employee stress, burnout and disengagement (Avolio & Bass, 2004; Fiedler, 1967; Hetland, Sandal, Johnsen, 2007; Spence Laschinger & Fida, 2014; Perko, Kinnunen, Tolvanen & Feldt, 2016; Sivasubramaniam et al., 2002).

While no single model can include all leader behaviours, some criticise the FRLM for incompleteness by failing to capture other important influencers and behaviours associated with a leader's style (Den Hartog, 1997; Yukl, 1997). Classifying transformational and transactional leadership into people or task-oriented behaviours excludes actions essential for building mutual trust like collective problem solving, the sharing of sensitive information and other behaviours associated to employee wellbeing. Similarly, as the model focuses on individual behaviour it misses capturing the interactive influence of follower, group, organisational and other environmental factors on a leader's style and employee wellbeing. Like other models, the FRLM is also criticised for assuming leadership styles and their influence on employee wellbeing are the same across

all situations (Yukl, 1997). Nonetheless, the FRLM has been found to be a good model for leading in occupational settings where employees seek to feel empowered, pursue positive development and desire an inspirational leadership style to help them navigate uncertain, complex, demanding work environments (Sivasubramaniam et al., 2002; Den Hartog, 1997).

Leadership encompasses a range of approaches: an interactive collection of high and low impact, active and passive behaviours, which could be categorised in different ways depending on personal perceptions and situational contexts (Eberly, Hernandez & Avolio, 2013; Gilbreath & Benson, 2004). As with defining leadership, what qualifies as active, successful leadership has been hotly debated (Eberly, Hernandez & Avolio, 2013; Fiedler, 1967; Kotter, 1995). Any discussion seeking to categorise leadership must acknowledge that most leaders demonstrate a range of active and less active behaviours.

### **The Role of Leaders in Employee Wellbeing**

Leadership can play an important part in shaping and defining an organisations psychosocial work environment (Skakon, Nielsen, Borg, Guzman, 2010). As psychosocial factors are an important determinant of psychological health, it seems reasonable to suggest that employee wellbeing is influenced by how a leader's style is perceived or judged by others.

Leadership has both direct and indirect influences on employee engagement and psychological wellbeing (Hetland, Sandal & Johnsen, 2007; Kanste, Kyngas & Nikkila, 2007). Active forms of leadership as perceived by employees are

linked to psychological wellbeing at work; increased motivation, engagement and job performance outcomes (Hetland, Sandal, Johnsen, 2007; Spence Laschinger & Fida, 2014; Perko, Kinnunen, Tolvanen & Feldt, 2016). The inspirational, visionary and supportive behaviours associated with transformational leadership influence realistic expectations and positive psychological health (Hetland, Sandal & Johnsen, 2007).

The contribution of transactional leadership practices to employee health is mixed (Skakon, Nielsen, Borg, Guzman, 2010). For some, transactional leadership is associated with burnout (Kanste, Kyngas & Nikkila, 2007; Hetland, Sandal & Johnsen, 2007), whereas others associate transactional leadership with positively influencing employee satisfaction (Shieh, Mills & Waltz, 2001). Contingent reward, when an employee is advised of what they should do to be rewarded, was associated with positive wellbeing (Morrison, Jones & Fuller, 1997; Shieh, Mills & Waltz, 2001). However, management-by-exception was associated with higher levels of stress and poorer well-being (Hetland, Sandal & Johnsen, 2007; Kanste, Kyngas & Nikkila, 2007; Shieh, Mills & Waltz, 2001; Skakon, Nielsen, Borg & Guzman, 2010).

While causality cannot be claimed, passive-avoidant leadership is largely associated with detrimental outcomes for employees (Hetland, Sandal, Johnsen, 2007; Kanste, Kyngas & Nikkila, 2007; Perko, Kinnunen, Tolvanen & Feldt, 2016;). Avoidant leadership practices are associated with low levels of engagement, higher stress levels and emotional exhaustion (Hetland, Sandal,

Johnsen, 2007; Kanste, Kyngas & Nikkila, 2007), counterproductive work behaviour, absenteeism rates and turnover intentions (Lavoie-Tremblay, Fernet, Lavigne & Austin, 2015; Spence Laschinger & Fida, 2014). Irrespective of occupational group, employees who perceive their leader as inactive, passive or avoidant are likely to experience emotional exhaustion as well as dysfunctional thoughts and feelings of frustration (Skogstad, Aasland, Nielsen, Hetland, Matthiesen, & Einarsen, 2014). Avoidant leadership styles are also associated with reduced engagement, impacting organisational outcomes in the form of absenteeism and poor performance (Breevaart et al., 2014; Perko, Kinnunen, Tolvanen & Feldt, 2016). However, some have found no direct link between passive, avoidant leadership and psychological wellbeing. The relationship between passive leadership and wellbeing outcomes may be influenced by role conflict and ambiguity, as well as by bullying and co-worker conflict (Sosik & Godshalk, 2000; Skogstad, Einarsen, Torsheim, Aasland & Hetland, 2007). No single leadership style is effective across all situations, so good leadership needs to be adaptable to meet situational, interpersonal and intrapersonal contexts. Leadership needs to be considered within the context of industry and organisational settings, as well as group and role characteristics (Avolio & Bass, 2004; Bass, 1990; Eberly, Hernandez & Avolio, 2013; Fiedler, 1967; Hetland, Sandal & Johnsen, 2007).

Despite the evidence indicating a relationship exists between leadership and occupational wellbeing, greater understanding is required to increase employee

engagement and reduce burnout in occupational settings. Policymakers, executives and other professionals need a good understanding of the factors that influence the relationship between leadership practices and occupational wellbeing (Allisey, Rodwell & Noblet, 2016; Aasland, Skogstad, Morten, Nielsen & Einarsen, 2010; Bakker & Demerouti, 2007; Grawitch, Gottschalk & Munz, 2006). Research drawing on the JD-R model has found a reliable relationship between leadership styles and occupational wellbeing (Perko, Kinnunen, Tolvanen & Feldt, 2016). Transformational leadership can positively influence employee perceptions of job demands (Fernet et al., 2015), and employees are likely to perceive transformational and transactional leadership as a job resource. Thus, employees experiencing transformational and transactional leadership are more likely to demonstrate higher levels of engagement and lower levels of emotional exhaustion compared to employees perceiving a less active form of leadership, such as a passive avoidant style. More specifically, in applying the JD-R model to leadership and occupational wellbeing, evidence shows a strong relationship between a supervisor's leadership practices and employee psychological health (Hawkes, Biggs & Hegerty, 2017; Perko, Kinnunen, Tolvanen & Feldt, 2016). In understanding the ways in which an employee's psychological health is influenced by various leadership styles, organisations can start to shape wellbeing.

## Chapter 4: Psychological Flexibility

### Psychological Flexibility

The role of job demands, and personal resources has been acknowledged by psychologists and widely reported in employee related well-being research (Bond, Flaxman, & Bunce, 2008; Breevaart & Bakker, 2018; Demerouti et al., 2001; Karasek, 1979). As definitions of psychological wellbeing in the workplace evolved, their focus shifted from reactive to interactive processes, involving behavioural change and recovery (Bond, Flaxman, & Bunce, 2008; McCracken, Chilcot, & Norton, 2014). Likewise, earlier views of psychological wellbeing focused on the need to satisfy a sense of autonomy, belonging and competence, then shifted to the content, intensity and magnitude of positive and negative thoughts, emotions, and experiences (Bond, Flaxman, & Bunce, 2008). While not disputing the value of traditional views, they fail to capture the shifting psychosocial forces at play (Kashdan & Rottenberg, 2010). As employees traverse job-related demands, interpersonal and intrapersonal processes facilitate adaptation to changing work situations (Ben-Itzhak, Bluvstein & Maor, 2014; Onwezen, van Veldoven & Biron, 2012).

Grounded in the Acceptance and Commitment therapy (ACT) psychological flexibility is the ability of an individual to adapt to changing environmental, situational and behavioural demands (Kashdan & Rottenberg, 2010; Onwezen, van Veldhoven & Biron, 2012). ACT is a third wave, health focused, evidence based psychological approach that applies mindfulness,

acceptance and commitment based behavioural change interventions with the aim of increasing psychological flexibility (Hayes, Luoma, Bond, Masuda & Lillis, 2006). As an evidence based behavioural change model, ACT has become an established approach achieving long term positive outcomes across a broad range of personal growth, mental health and behavioural problems (Hayes, Strosahl & Wilson, 1999; Kashdan & Rottenberg, 2010). ACT targets attainment of psychological flexibility by focusing on six core processes; mindfulness (contact with the present moment), defusion (detachment from thoughts), acceptance (nonjudgmental allowance of inner experience), self as context (an observing self), values, and committed action. In this way, psychological flexibility or inflexibility is influenced by a person's ability to applying a consistent set of skills involving non-judgemental acceptance, mindfulness and commitment processes. Psychological flexibility is defined as a person's ability to be in the present moment and while accepting distracting or negative thoughts without avoiding or fixating on them align their behaviour with value driven goals (Bond, Flaxman and Bunce 2008). For many, this present moment, value congruent behavioural focus is an important indicator of good mental health (Bond, Flaxman, & Bunce, 2008; Robins, Roberts and Sarris, 2015). Thus, psychological flexibility could be deemed an important personal resource for buffering job demands and improving occupational wellbeing.

Employees identified as psychologically flexible can without judgement understand their internal state and act on it positively, irrespective of the negative

impact or experience (Bond, Flaxman, & Bunce, 2008; Hayes, Luoma, Bond, Masuda, & Lillis, 2006). Longitudinal studies show that higher levels of psychological flexibility are associated with better mental health (Bond & Bunce, 2003). This is supported by others who find higher levels of psychological flexibility are associated with lower levels of work-related stress and burnout (Hayes, Luoma, Bond, Masuda & Lillis, 2006; Lloyd, Bond, & Flaxman, 2013). Thus, employees with higher levels of psychological flexibility should have less emotional exhaustion and higher levels of engagement than those with lower levels of psychological flexibility. Conversely, employees identified as psychologically inflexible are found to ruminate, avoid or fixate on negative thoughts (Bond & bunce, 2003). Therefore, emotional exhaustion and disengagement is more likely to be experienced by employees with lower levels of psychological flexibility.

Psychological flexibility helps individuals to recognise an observing self; where a person learns to develop an awareness of their situation, thoughts, emotions and sensations (Baer, 2003). Psychological flexibility is defined in terms of active behaviours and processes, not just content. Central to psychological flexibility, is the notion of self-awareness (Bond, Flaxman, & Bunce, 2008). Psychological flexibility involves mindful awareness of one's own thoughts, feelings in a way that reduces barriers to goal attainment, while acting consistently with one's values (Palladino, Ange, Richardson, Casillas, Decker, Gillies, House, Rollock, Salazar, Waller, Zeidan & Stepleman, 2013). For this study,

psychological flexibility is defined as a personal resource that enables a person to constructively respond to environmental demands and their internalisation of these experiences in attainment of their goals, and values.

### **The Psychological Flexibility Model**

Theoretically, psychological flexibility is achieved through six core ACT processes, involving six skill domains: Acceptance, Cognitive Defusion, Being Present, Self as Context, Chosen Values and Commitment Action. Each change process involves the goal of increasing psychological flexibility (Hayes et al., 2006). In line with the JD-R model, psychological flexibility is identified as a personal resource. When presented with unwanted or challenging events, employees high in psychological flexibility focus on the present moment and take value driven, proactive goal orientated action (Kuo, Ye, Chen & Chen, 2017). With regards to demanding work situations, instead of trying to change the frequency or intensity of the distressing thoughts, emotions and sensations, the psychological flexibility model focuses a person's efforts on changing how they relate to the experience. Independent of the experience the person then aims to evoke positive, values-based action (Levin, Hildebrandt, Lillis & Hayes, 2012).

Table 1

*Six Elements of Psychological Flexibility and Psychological Inflexibility.*

Psychological Flexibility	Psychological Inflexibility
1. Acceptance: actively embrace all internal experiences (for example, individuals are taught to feel and embrace anxiety instead of resisting it)	Experiential avoidance
2. Cognitive diffusion: the ability to decrease the believability of, or attachment to, internal thoughts and experiences	Cognitive fusion
3. Being present: present moment awareness and non-judgmental interpretation of the experience	Loss of flexible contact with the present moment
4. Self as context: the ability to observe and experience oneself. Not to be defined by one's beliefs, emotions, and experiences. Instead see oneself as the context, or location, in which the experience occurs	Attachment to a contextualized self
5. Chosen values: behaving consistently with one's values rather than avoiding or complying with a different set of values	Lack of values and clarity
6. Committed action: behaving in accordance with chosen values	Inaction, impulsivity or avoidant persistence

Psychological flexibility is linked to employee wellbeing and healthy psychological functioning (Bond, Flaxman, van Veldoven & Biron, 2010; Hayes, Luoma, Bonda, Masuda & Lillis, 2006; Kashdan & Rottenberg, 2010; McCracken, Chilcot, & Norton, 2014). Hayes, et al., (2006) found higher levels of psychological flexibility to be moderately related to healthier psychological outcomes. Even when regulating for control individuals have over how they execute their job, longitudinal studies find a positive relationship between higher levels of psychological flexibility and overall wellbeing (Bond & Bunce, 2003; Hayes et al., 2006). Research finds that higher levels of psychological flexibility has a negative relationship with burnout, diminished motivation and engagement (Lloyd, Bond & Flaxman, 2013; Nevanperä, Lappalainen, Kuosma, Hopsu, Uitti & Laitinen, 2013). Essentially, psychological flexibility is a strong predictor of psychological wellbeing.

Conversely, evidence shows that psychological inflexibility is associated with a range of detrimental wellbeing outcomes (Bond & Bunce, 2003; Hayes et al., 2006). Many forms of psychopathology are marked by diminished psychological flexibility, which reflects the domination of maladaptive affect/behavior regulations (e.g., avoidance) and the deficits of contingency-sensitive and value-directed behaviors. Diminished psychological flexibility is associated with stress, occupational burnout and negative employee engagement (Hayes et l., 2006; Kashdan & Rottenberg, 2010; Nevanperä, Lappalainen, Kuosma, Hopsu, Uitti & Laitinen, 2013; Onwezen, van Veldhoven & Biron,

2012). This implies that individuals struggling to cope with demanding or stressful situations have low psychological flexibility. Likewise, when confronted with demanding situations, people with high psychological flexibility demonstrate greater coping flexibility and have less depression, anxiety and are more engaged.

### **Psychological Flexibility as a Personal Resource**

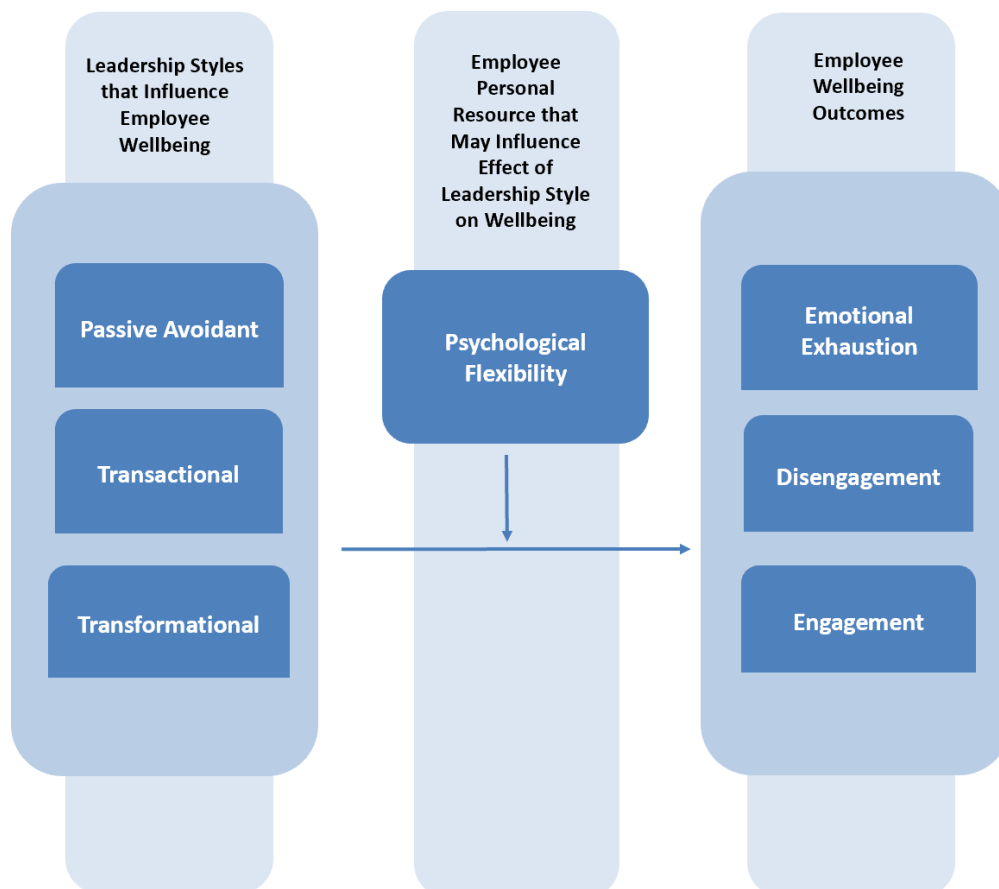
Central to psychological flexibility is the view that individuals who accept their demanding experience are more likely to positively apply their energy to behave in a way that is aligned with their goals and values. While evidence affirms the value of psychological flexibility, further research finds for a relationship between psychological flexibility and health outcomes (Levin, Hildebrandt, Lillis & Hayes, 2012; Lloyd, Bond & Flaxman, 2013; Kashdan & Rottenberg, 2010; Onwezen, van Veldhoven & Biron, 2012). In examining a CBT intervention for burnout, Lloyd, Bond & Flaxman, 2013, found psychological flexibility played a valuable role in reducing the emotional components of burnout. Increases in psychological flexibility were found to moderate decreases in emotional exhaustion, which were found to buffer against increases in strain and depersonalisation.

Psychological flexibility is seen here as a personal resource that can buffer against situational demands, reduce burnout and enhance employee engagement. According to Hobfoll, Johnson, Ennis & Jackson, (2003), personal resources are a person's capacity to control and manage challenging environments in a way that

results in positive outcomes. Personal resources are usually linked to a person's coping style and resilience (Salanova, Del Libano, Llorens & Schaufeli, 2014). Unlike job resources, which refer to the psychological, physical, social and organisational aspects of a job that involves physical, emotional or cognitive effort to reduce associated psychological and physiological costs, like burnout and other damaging health outcomes.

This study aims to contribute to current literature in several ways. Firstly, employee health and wellbeing are explored in a relatively unresearched occupation; IT project-based work. Secondly, the unique contribution of three leadership styles to employee wellbeing outcomes: exhaustion, disengagement and engagement, is investigated. Thirdly, a relatively new phenomena; psychological flexibility is examined in a work context. Lastly, the JD-R model is applied to explore the influence of different leadership styles as demands or resources on employee wellbeing outcomes.

Job resources in this model are perceived as transformational and transactional leadership styles, along with the job demand passive avoidant leadership. Psychological flexibility is positioned as a personal resource that moderates the relationship between job demands and occupational burnout and engagement.



**Figure 2.** Hypothesised moderation model of psychological flexibility between leadership style and employee wellbeing.

- H1.1 The positive relationship between passive avoidant leadership and emotional exhaustion will be weaker in employees with higher levels of psychological flexibility.
- H1.2 The positive relationship between passive avoidant leadership and disengagement will be weaker in employees with higher levels of psychological flexibility.

- H1.3 The negative relationship between passive avoidant leadership and engagement will be weaker in employees with higher levels of psychological flexibility.
- H2.1 The negative relationship between transformational leadership and emotional exhaustion will be weaker in employees with higher levels of psychological flexibility.
- H2.2 The negative relationship between transformational leadership and disengagement will be weaker in employees with higher levels of psychological flexibility.
- H2.3 The positive relationship between transformational leadership and engagement will be stronger in employees with higher levels of psychological flexibility.
- H3.1 The negative relationship between transactional leadership and emotional exhaustion will be weaker in employees with higher levels of psychological flexibility.
- H3.2 The negative relationship between transactional leadership and disengagement will be weaker in employees with higher levels of psychological flexibility.
- H3.3 The positive relationship between transactional leadership and engagement will be stronger in employees with higher levels of psychological flexibility.

## Chapter 5: Method

### Introduction

The sample representativeness is outlined first, followed by an overview of the measures used to compile the final questionnaire, then the recruitment approach is summarised in the procedures section. The data analysis section describes the preliminary analysis process, how reliability and validity were managed, as well as the wider analysis process.

### Procedure

Having been peer reviewed and judged to be low risk, notification by Massey University Human Ethics Committee was received in March 2017 for this study to proceed. A copy of the Human Ethics notification is provided in Appendix A.

In July 2017, Australian and New Zealand IT professionals were recruited via a targeted email inviting participation in a leadership and employee wellbeing questionnaire. Data were collected using an online survey. To ensure conformity with ethical principles and practices, prior to progressing, individuals were advised in a personalised email of the research intent, voluntary participation, anonymity and process for providing informed consent. Participants were invited to progress by clicking on a survey link. To ensure anonymity, responses were classified via a randomly assigned code using an automated unidentifiable link. The code was assigned on starting the questionnaire. The informed consent procedure, communicated in writing included all the required elements; research

intent, process, risks, handling of data, right to decline and withdraw at any time, as well as contact details for additional information, questions or concerns. Informed consent to collect respondent data was acquired from each participant by clicking on a “yes” or “No” question. Consenting participants were taken to a page where they individually completed a 92-item, online questionnaire. Upon completion of the study participants were thanked for their contribution and were invited to receive a copy of the final report. Twenty-two (12%) participants requested a copy of the final report.

To facilitate reliable data collection and the targeting of Australian and New Zealand IT professionals, a database of potential participants, companies and online networks was developed using the following selection criteria:

- New Zealand or Australian based IT network or communities identified through online professional groups;
- 250 of the researcher’s LinkedIn professional contacts employed in IT roles, with Australian and New Zealand companies;
- Corporate entities known by the researcher to use and deliver IT services in Australia and New Zealand.

The search criteria resulted in the following list of IT professional, online networks, communities and companies being approached via email for participation:

- Australian and New Zealand LinkedIn contacts and groups  
(*www.linkedin.com*)

- Change Management Practitioners  
([www.linkedin.com/groups/719177](http://www.linkedin.com/groups/719177))
- PCM Project and Change Management Practitioners  
([www.linkedin.com/groups/1810111](http://www.linkedin.com/groups/1810111))
- PMO - Project Management Office ([www.linkedin.com/groups](http://www.linkedin.com/groups))
- Portfolio and Project Management (PPM)
- QSuper Group
- Virgin Australia
- Concentrate (NZ)
- Microsoft Australia and New Zealand
- Queensland Health
- CommARC Consulting NZ
- Massey University Research site (NZ).

To enhance statistical power and analysis, sample numbers were increased through email reminders and requests to forward the survey link, as well as repeated postings on professional networks. These approaches increased participant response rates and the number of completed surveys.

### **Participants**

Over a five-week survey period, 181 participant responses were received. Of these 28 (15%) were removed due to no respondent input beyond demographic data, leaving 153 useable questionnaires for analysis. Little's (1988) Missing Completely at Random (MCAR) test (.996,  $p < 0.05$ ) indicated the data were

MCAR. Missing data were excluded pairwise in subsequent analyses (Field, 2015).

Descriptive statistics for participant demographics are provided in Table 1. The final sample comprised 81 (53%) females and 72 (47%), males. Participants ranged in age from 18 to > 55 years. Education was non-normally distributed with skewness = 0.119 ( $SE = 0.196$ ) and kurtosis of 0.042 ( $SE = 0.390$ ). While most participants (44%) identified as being employed in managerial or leadership roles, 75% reported holding a lower organisational position than the person they were rating. Participants' current roles were non-normally distributed towards leadership and managerial roles, with skewness of 0.815 ( $SE = 0.196$ ) and kurtosis of -0.561 ( $SE = 0.390$ ). All participants were employed in IT project work in Australasia (91%); 92% were aged 35 years or older, 71% were tertiary educated and 60% worked full time (37 hours or more per week). As most (75%) respondents identified as being at a lower (subordinate) organisational level than the person they were rating, participant scores can be used to better understand the impact different leadership styles have on employee wellbeing. This study's demographic profile suggests the sample mainly comprises well educated, middle aged men and women, employed full time, in supervisory roles, on IT projects, in Australia.

In all but age and gender, the sample reflects the characteristics of IT professionals in the Australian labour market (Labour Market Portal, 2017). Australian labour market statistics indicate 39.4% of IT employees are aged 18 -

34 years, 51.3% aged 35 to 54 years and 9.3% 55 years or older (Labour Market Portal, 2017). In comparison, the sample's median age reflected the IT workforce statistics (40 years compared with 38 years). In an industry that reveals female participation rates to be less than 40%, female respondents comprised 52.9% (Labour Market Portal, 2017). As with this study, Australian labour market IT workforce statistics show that most work 37 hours or more per week (83%) and hold a post school qualification (84%). While caution is needed in making generalisations beyond the current study, the sample size, demographics and role representativeness indicates the results obtained are representative of typical employees engaged in IT project work in Australia.

Table 2

*Participants Demographic Information*

		Frequency	%
<b>Gender</b>	Female	81	52.9
	Male	72	47.1
<b>Age</b>	18-34	12	7.8
	35-54	102	66.7
	55 years or more	39	25.5
<b>Education</b>	High school	13	8.5
	Polytechnic or Trade Certificate	13	8.5
	Undergraduate Degree	48	31.4
	Postgraduate Degree	58	37.9
	Doctoral Degree	2	1.3
	Professional Qualification	19	12.4
<b>Work Role</b>	Management or Leadership	67	43.8
	Business or Systems Analyst	21	13.7
	Project Office, Technical Support or Administrative	9	5.9
	IT Change Specialist, Training or Subject Matter Expert	23	15.0
	Software Developer, Solution Architect or Infrastructure Specialist	19	12.4
	Other	14	9.2
<b>Employment Status</b>	Previously employed on an IT related project	36	23.5
	Employed on an IT project, working 1 - 21 hours per week	11	7.2
	Employed on an IT project, working 22-36 hours per week	11	7.2
	Employed on an IT project, working 37 or more hours per week	91	59.5
	Missing	4	2.6
<b>Country where conduct IT project work</b>	New Zealand	13	8.5
	Australia	140	91.5
<b>Project Lifecycle Stage</b>	Concept or Initiation	8	5.2
	Planning or Design	31	20.3
	Delivery or Execution	72	47.1
	Post Implementation, Warranty or Closure	31	20.3
	Missing	11	7.2
<b>Organisational position?</b>	I am at a higher organizational level than the person I am rating.	5	3.3
	The person I am rating is at my organizational level.	22	14.4
	I am at a lower organizational level than the person I am rating.	114	75.0
	Missing	12	7.8

## Measures

This section outlines the source of data used for this study. A copy of the anonymous, self-reported questionnaire is provided in Appendix B. All scales were individually assessed and deemed suitable for exploring using Principal Component Analysis (PCA), (Kaiser-Meyer-Olkin (KMA)  $> 0.60$ ; Bartlett's Test of Sphericity  $> 0.05$ ), (Field, 2015). All scale scores were computed as the means of items.

Leadership styles were measured with the 45-item, online version of the Multifactor Leadership Questionnaire (MLQ) Form 5X Rater, by Avolio and Bass (2004). The questionnaire was used under license from Mind Garden (Mind Garden, 2017). The MLQ measures transformational, transactional and passive avoidant leadership using thirty-two items on nine subscales: idealized attributes, idealized behaviours, inspirational motivation, intellectual stimulation, individual consideration, contingent reward, management by exception active, management by exception passive and laissez faire (Avolio and Bass, 2004). As they were not the focus of this study, nine items measuring leadership outcomes (effectiveness) were excluded from analysis. Responses were captured using a five-point Likert scale from (0) "not at all" to (4) "frequently, if not always". Higher scores represented more of the leadership behaviour.

As components correlated  $> .3$ , Principal Component Analysis (PCA) using direct oblimin rotation was completed. Initial results identified seven factors with eigenvalues over 1, accounting for 72.1% of the variance. However, inspection of

Catell's (1966) scree plots and Parallel Analysis (Pallant, 2016) revealed a three-factor solution explaining 57.4% of the variance. The three factors were designated transformational, transactional and passive avoidant leadership.

The Transformational Leadership subscale comprised twenty-two items and accounted for 44% of the variance,  $\alpha = .98$ . Using one of five Likert scale options, participants rated how frequently a range of descriptive statements fitted a leader or supervisor (e.g. "talks optimistically about the future"), ( $M = 2.27$ ,  $SD .95$ ). The six-item transactional leadership subscale accounted for 8.1% of the variance, e.g. "keeps track of all mistakes", ( $M 1.73$ ,  $SD .97$ ),  $\alpha = .78$ . A four-item subscale measuring passive avoidant leadership accounted for 5.4% of the variance (e.g. "waits for things to go wrong before taking action"), ( $M = 1.21$ ,  $SD .94$ ),  $\alpha = .87$ .

Psychological flexibility was measured with the seven item Work-Related Acceptance and Action Questionnaire (WAAQ), (Bond, Lloyd & Guenole, 2013). Participants indicated how true each statement was for them (e.g. "worries do not get in the way of my success") on a seven-point scale ranging from (1) "never true" to (7) "always true. Higher scores indicate greater psychological flexibility.

All seven items of the WAAQ were subjected to PCA and as items correlated  $>.3$ , direct oblimin rotation was completed. PCA results provided evidence for maintaining the same item and component structure as Bond, Lloyd and Guenole's (2013) WAAQ model. Thus, a single component, seven item solution was retained, explaining 58% of the variance ( $M = 5.1$ ,  $SD .82$ ),  $\alpha = .88$ .

Engagement was measured using the 17 item, English version of the Utrecht

Work Engagement Scale (UWES) by Schaufeli & Bakker (2004a). The UWES is found to have good internal consistency and rest re-test reliability (Schaufeli, Salanova & Bakker, 2006). Participants conveyed their agreement with items on a seven-point Likert scale (0) “never” to (6) “every day”. Higher scores signify greater engagement.

The data met all the requirements for PCA (KMA  $>.917$ ; Bartlett’s test of sphericity  $>.001$ ). Initial results revealed three components with eigenvalues greater than one, accounting for 65.5% of the variance. Horn’s Parallel Analysis (1965) and scree plot findings identified the need conduct further analysis. Three items (3, 12 & 14) that cross loaded strongly were removed. As items correlated  $>.3$ , direct Oblimin rotation was applied. PCA results did not support using the same three factor structure as the UWES. As only one item loaded on the second factor, a single component, eleven item solution was retained, explaining 62% of the variance and designated “engagement” (M = 4.6, SD 1.0). The Cronbach alpha co-efficient was  $a = .94$ .

Burnout: Emotional exhaustion and disengagement were assessed using the English version of the Oldenburg Burnout Inventory (OLBI), (Demerouti and Nachreiner, 1998). The 16-item questionnaire includes eight positively and eight negatively worded statements (e.g. “there are days when I feel tired before I arrive at work”). Reverse scoring where an original item rated 4 became a 0 was used for negatively worded items. While response categories in the original version are (1) “strongly agree” to (4) “strongly disagree” for consistency across all

instrument items the questions in this study were categorised from (1) “strongly disagree” to (4) “strongly agree”. Higher scores indicate higher levels of emotional exhaustion or disengagement (burnout).

Preliminary analysis found no assumptions were violated (KMA  $>.87$ ; Bartlett’s test of sphericity  $>.001$ ). Due to high intercorrelation of items a direct oblimin rotation was applied. Horn’s Parallel Analysis (1965) and scree plot results supported a 13 item, two factor solution. The two-factor solution accounted for 47.7% of the total variance. Factors were designated emotional exhaustion and disengagement. Emotional exhaustion accounted for 36% of the variance (M = 3.7, SD .51),  $\alpha = .78$ . Disengagement accounted for 21% of the variance, (M = 2.1, SD .48),  $\alpha = .84$ .

### **Data Analysis**

IBM Statistics Version 25 was used for analysing the survey data. The data were initially screened and assessed by visual inspection for missing cases, errors and outliers using frequency tables, histograms and scatterplots. Inspection of trimmed mean scores and Mahalanobis distances identified no extreme cases requiring removal (Pallant, 2016).

Data met the assumptions of linearity and homoscedacity. Skew and kurtosis results showed the data were not normally distributed. While no consensus for an acceptable degree of non-normality exists, results shown in Table 3 reveals only minor violations of the normality assumption ( $<2$  skewness and  $<7$  kurtosis), (Munthen & Kaplan, 1985). Thus, the values were deemed to be

within an acceptable range to be investigated using parametric statistical testing techniques (Field, 2015; Munthen & Kaplan, 1985).

Table 3

*Descriptive Statistics for Leadership Styles, Psychological Flexibility and Employee Wellbeing Scales.*

	<i>N</i>	Mean	SD	Min	Max	Range	Skew	SE	Kurtosis	SE
1. Passive avoidant	153	1.21	0.94	0	4	4	0.66	0.20	-0.36	0.40
2. Transformational	144	2.27	0.95	0	4	4	-0.37	0.20	-0.73	0.40
3. Transactional	144	1.73	0.97	0	4	4	0.29	0.20	-0.48	0.40
4. Psych Flexibility	153	5.11	0.82	3	7	4	-0.14	0.20	-0.31	0.39
5. Emotional Exhaustion	153	2.43	0.51	1	4	3	0.35	0.20	-0.12	0.39
6. Disengagement	153	2.13	0.48	1	4	3	0.45	0.20	0.50	0.39
7. Engagement	153	4.64	1.01	1	6	5	-1.39	0.20	2.37	0.39

Pearson product-moment correlation was used to assess bivariate relationships between continuous variables (Pallant, 2016). Independent samples t-tests and analysis of variance (ANOVA) were performed to examine demographic differences in study variables. Multiple regression analyses were conducted to test the hypotheses. As there were 153 participants and seven variables, sample size requirements of 15 cases of data per predictor variable were met (Cohen, 1988; Field, 2015).

To establish direct and moderator effects, each hypothesis was analysed separately using linear regression. Interaction terms were developed by multiplying the independent and moderating variables. To reduce the effects of

multicollinearity the predictor and moderating variables, were centred before calculating the interaction term by subtracting the mean score from each variable (Field, 2015).

## Chapter 6 Results

### Descriptive Statistics

Descriptive statistics are provided in Table 3. Mean burnout dimension scores show participants rated themselves higher in emotional exhaustion than disengagement. Standard deviation scores indicate a small degree of variation across participants for exhaustion and disengagement.

Transformational leadership was the highest rated leadership style ( $M = 2.27$ ,  $SD = .95$ ). The lowest rated leadership style was passive avoidant ( $M = 1.21$ ,  $SD = .94$ ), followed by transactional leadership ( $M = 1.73$ ,  $SD = .97$ ). However, transformational leadership for this sample was still rated low, indicating transformational leadership was perceived and rated by participants as “sometimes” observed. Minimum and maximum score ranges show psychological flexibility was rated high ( $M = 5.1$ ,  $SD = .82$ ) and the only variable to be scored at its maximum.

### Demographic Differences

An independent-samples t-test was conducted to compare the wellbeing scores for male and female participants. Results revealed there were no gender differences except for engagement, where women had higher engagement scores than men ( $t(149.25) = .08$ ,  $p < .05$ ). However, the magnitude of the mean differences (mean difference = .01, 95% CI: -.31 to .33) was very small (eta squared = .008).

One way between-groups analyses of variance (ANOVA) were conducted

on all scale variables to compare the impact of education, role, employment status, project lifecycle and age on emotional exhaustion, disengagement and engagement. Age was found to be the only scale to significantly differ for emotional exhaustion  $F(2, 150) = 3.14, p = .046$ . Age group comparisons using the Tukey HSD test indicated that participant's mean emotional exhaustion score for those aged 35 – 54 years ( $M = 2.50, SD = .48$ ) was significantly different from those aged 55 years and over ( $M = 2.26, SD = .54$ ). Comparisons showed that participants aged 35 – 54 years indicated a greater level of emotional exhaustion, over any other age group  $t(150) = 3.14, p = .046, (r = .36, p < .01)$ . Participants aged 18 to 34 years ( $M = 2.40, SD = .51$ ) did not significantly differ from those aged 35 to 54 years or 55 years and over. While significant differences were found between gender and engagement, age, and emotional exhaustion, effect sizes were small (.008 and .04). Thus, these variables were not included in the regressions as control variables (Pallant, 2016).

### **Bivariate Correlations**

The relationships between leadership styles, psychological flexibility and employee wellbeing were investigated using Person product-moment correlation. Table 4 reveals transformational leadership has a weak negative relationship with exhaustion, a moderate negative association with disengagement and a moderate positive association with engagement. Transformational leadership also showed a weak negative relationship with transactional leadership and a strong negative relationship with passive avoidant leadership. Passive avoidant leadership

displayed a weak, positive relationship with emotional exhaustion and disengagement. The only significant relationship for transactional leadership was a weak association with passive avoidant leadership.

Psychological flexibility was positively related to transformational and transactional leadership, and negatively with passive avoidant leadership. Psychological flexibility showed a moderate negative association with disengagement and a weak negative association with exhaustion. A moderate positive relationship is observed between psychological flexibility and engagement. Emotional exhaustion and disengagement were moderately positively related. Engagement had a moderate negative association with emotional exhaustion and a strong negative relationship with disengagement.

Table 4

*Correlations and Cronbach's  $\alpha$  for all Scales in the Study (N=153).*

	1	2	3	4	5	6	7
1. Passive Avoidant	(0.87)						
2. Transformational	-.64**	(0.98)					
3. Transactional	.34**	-.25**	(0.78)				
4. Psych Flexibility	-0.04	.16*	0.01	(0.88)			
5. Emotional Exhaustion	.34**	-.33**	0.06	-.26**	(0.78)		
6. Disengagement	.28**	-.53**	0.00	-.31**	.48**	(0.84)	
7. Engagement	-0.11	.47**	0.06	.33**	-.35**	-.73**	(0.94)

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

## **Hypothesis Testing**

There was no support for Hypotheses 1.1, 1.2 and 1.3 as psychological flexibility did not moderate the relationship between passive avoidant leadership and emotional exhaustion (H1.1), disengagement (H1.2) or engagement (H1.3). However, while the interaction terms were not significant, direct positive effects were observed between passive avoidant leadership and emotional exhaustion and disengagement, but not engagement. Psychological flexibility was related to engagement and disengagement, but not emotional exhaustion (see Table 5).

Table 5

*Summary of Hierarchical Regression Analysis for Leadership Styles, Psychological Flexibility and their Interaction Effects on Employee Wellbeing (N=153).*

Hypothesis (H1)	(H1.1, H1.4, H1.7) Emotional Exhaustion			(H1.2, H1.5, H1.8) Disengagement			(H1.3, H1.6, H1.9) Engagement		
	<i>B</i>	<i>SEB</i>	$\beta$	<i>B</i>	<i>SEB</i>	$\beta$	<i>B</i>	<i>SEB</i>	$\beta$
Passive avoidant (PA)	.17***	.04	.33	.12***	.04	.26	-.11	.08	-.10
Psychological flexibility (PF)	-.11	.06	-.22	-.12*	.06	-.26	.39**	.13	.39
PA X PF	-.01	.04	-.03	-.01	.03	-.05	-.05	.07	-.08
F (df1, df2)	9.74*** (3, 140)			9.26*** (3, 140)			6.34*** (3, 140)		
$R^2$	.17***			.17***			.12***		
Adjusted $R^2$	.16***			.15***			.10***		
Transformational	-.16***	.04	.31	-.23***	.03	-.48	.46***	.07	.46
Psychological flexibility (PF)	-.10*	.04	-.20	-.11***	.03	-.24	.24***	.07	.24
Transformational X PF	.03	.04	.07	-.01	.03	-.02	-.14	.07	-.14
F (df1, df2)	8.77*** (3, 140)			22.97*** (3, 140)			20.57*** (3, 140)		
$R^2$	.16***			.33***			.31***		
Adjusted $R^2$	.14***			.32***			.29***		
Transactional	.03	.04	.05	.01	.04	.01	.05	.08	.05
Psychological flexibility (PF)	-.13**	.04	-.26	-.15***	.04	-.31	.33***	.08	.32
Transactional X PF	.00	.04	.01	-.01	.04	-.02	-.01	.08	-.02
F (df1, df2)	3.44* (3, 140)			4.98** (3, 140)			5.70*** (3, 140)		
$R^2$	.07*			.01**			.11***		
Adjusted $R^2$	.05*			.08**			.09***		

Note: all variables were centred at their means

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Hypotheses 2.1, 2.2 and 2.3 examined the moderating role of psychological flexibility on the relationship between transformational leadership and wellbeing. Hypotheses 2.1, 2.2 and 2.3 were not supported (Table 5), as there was no moderating role of PF for emotional exhaustion, disengagement or engagement.

Again, direct effects were found, as transformational leadership and psychological flexibility increased, emotional exhaustion and disengagement decreased, and engagement increased.

Psychological flexibility also did not moderate the relationships between transactional leadership and wellbeing (H3.1, H3.2 and H3.3); Table 5. However, direct positive effects were found; as transactional leadership increased, emotional exhaustion, disengagement and engagement increased. As psychological flexibility increased, emotional exhaustion decreased, and engagement increased.

In summary, psychological flexibility did not play the expected moderation role between leadership and wellbeing outcomes, but direct effects were observed instead. All direct effects were in the expected directions. Psychological flexibility was associated with increased engagement in the analyses of all three leadership styles but was not consistently related to emotional exhaustion or disengagement. To examine the relative contribution of psychological flexibility and each form of leadership to wellbeing, three additional regression analyses were completed to investigate direct effects (Table 6).

Table 6

*Summary of Hierarchical Regression Analysis for Leadership Styles, Psychological Flexibility and their Direct Effects on Employee Wellbeing (N = 153).*

Model	Emotional Exhaustion			Disengagement			Engagement		
	<i>B</i>	<i>SEB</i>	$\beta$	<i>B</i>	<i>SEB</i>	$\beta$	<i>B</i>	<i>SEB</i>	$\beta$
Passive avoidant	.13*	.05	.25	-.02	.04	-.05	.26**	.09	.26
Transformational	-.08	.05	-.16	-.26***	.04	-.55	.64***	.09	.63
Transactional	-.03	.04	-.06	-.05	.04	-.11	.12	.07	.12
Psychological Flexibility	-.11**	.04	-.22	-.11**	.03	-.23	.24***	.07	.24
F (df1, df2)	8.10*** (4, 139)			18.29*** (4, 139)			18.72*** (4, 139)		
<i>R</i> <sup>2</sup>	.19***			.35***			.35***		
Adjusted <i>R</i> <sup>2</sup>	.17***			.33***			.33***		

Note: all variables were centred at their means

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Leadership style and psychological flexibility accounted for a greater share of the variance in engagement and disengagement, than for emotional exhaustion. Transformational leadership was the greatest contributor to engagement and disengagement. An unexpected result was that passive avoidant leadership was positively associated with engagement as well as with emotional exhaustion. The implications of this will be outlined in the discussion. Transformational leadership was associated with decreased disengagement and increased engagement. Emotional exhaustion increased when associated with passive avoidant leadership but reduced when related with psychological flexibility. Transformational leadership explained unique variance in disengagement and engagement over, and above other leadership styles, and psychological flexibility. Passive avoidant

leadership only explained unique variance on emotional exhaustion and engagement. Transactional leadership explained no unique variance. Alongside the effects of leadership, psychological flexibility explained unique variance in emotional exhaustion, disengagement and engagement.

## Chapter 7 Discussion

Grounded in the JD-R Theory and ACT Model, 153 professionals were surveyed using an online self-reported questionnaire to research the effects of a leader's style on employee wellbeing. As most leadership and employee wellbeing research has focused on frontline occupations in healthcare, education and hospitality sectors, this study sought to explore a relatively unresearched, non-frontline industry. (Hetland, Sandal & Johnsen, 2007; Maslach, Schaufeli & Leiter, 2001; Onwezen, van Veldhoven & Biron, 2012; Suan & Nasurdin, 2016). Characterised by high demands, low resources, limited durations and multiple, transient supervisory relationships, IT project-based work was selected as the industry of interest (Tyssen, Wald & Spieth, 2013). With the intention of providing a balanced perspective instead of focusing on single a negative leadership or health construct, factors that influence desirable employee wellbeing outcomes were included in the study (Seligman & Csikszentmihalyi, 2000). Thus, participant data on three leadership styles (passive avoidant, transformational and transactional), psychological flexibility and three employee wellbeing (emotional exhaustion, disengagement and engagement) outcomes were collated and analysed.

The research aimed to provide support for the JD-R theory by examining if the relationships between passive avoidant, transformational and transactional leadership styles differed for work related burnout, characterised as emotional exhaustion and disengagement, and engagement. Psychological flexibility was

included in the analysis to explore the influence of a personal resource on the relationship between leadership styles and work-related wellbeing outcomes. It was hypothesised that psychological flexibility would moderate the effects of a leader's style, on employee wellbeing. In comparison with other studies, the sample rated themselves as possessing high levels of psychological flexibility ( $M = 5.11$ ,  $SD = .82$ ) and engagement ( $M = 4.64$ ,  $SD = 1.01$ ), (Biron & van Veldhoven, 2012; Breevaart & Bakker, 2018; Schaufeli & Bakker, 2004a; Kuo et al., 2017). In terms of wellbeing participants evaluated themselves as moderately exhausted ( $M = 2.43$ ,  $SD = .51$ ), and disengaged ( $M = 2.13$ ,  $SD = .48$ ), (Demerouti, Mostert & Bakker, 2010).

This study found that a supervisor's leadership style was directly related to employee wellbeing, regardless of the perceived level of psychological flexibility. Results also provided empirical support for a direct relationship between psychological flexibility and employee wellbeing. Converse to expectations, the relationship between transformational, transactional and passive avoidant behaviours, and emotional exhaustion, disengagement and engagement were not strengthened by an individual's level of psychological flexibility. The lack of an interactive effect contradicts previous research regarding job demands, resources and occupational wellbeing, where psychological flexibility moderated these relationships (Novaes, Ferreira and Valentini, 2018; Onwezen, van Veldhoven & Biron, 2012). The results challenge the view that psychological flexibility buffers the detrimental effects of job demands and enhances the effects of resources on

an employee's wellbeing (Onwezen, van Veldhoven & Biron, 2012). However, the finding of direct relationships between leadership styles and psychological flexibility with employee wellbeing, demonstrates a clear health pathway and provides support for the JD-R Theory (Demerouti et al., 2001) and ACT Model (Hayes et al., 2006).

While it cannot be known for certain why no moderating effect was found, several reasons are proposed. One reason could be that psychological flexibility being a malleable as opposed to a stable construct (Kuo et al., 2018). Much of the literature has focused on stable individual constructs like general mental health, personality, education and occupation in clinical settings (Bond, Lloyd, Guenole, 2013; Palladino et al., 2013; Robins, Roberts & Sarris, 2015). Support for psychological flexibility as a malleable construct is evident, where increases in psychological flexibility led to significant wellbeing improvements on completion of interventions (Bond & Bunce, 2000; Lloyd, Bond & Flaxman, 2013). It could also be that the study has insufficient power to reveal a significant moderating effect. As this study explored psychological flexibility as a moderator in a non-clinical setting, with a relatively unresearched industry further research is suggested to explore these claims.

Passive avoidant leadership was positively associated with emotional exhaustion and disengagement, but negatively with engagement. These results support previous research that showed passive avoidant leadership as a type of job demand, that detrimentally impacts employee wellbeing (Barling & Frone,

2016; Skogstad, Einarsen, Torsheim, Aasland & Hetland, 2007) and engagement (Gilbert & Kelloway, 2018; Wilk & Moynihan, 2005). Interestingly, passive avoidant leadership was positively associated with both emotional exhaustion and engagement. While unexpected, this finding suggests that being engaged at work can be an exhausting experience, especially with avoidant or unsupportive supervision. In finding direct relationships between passive avoidant leadership and engagement, psychological flexibility and employee wellbeing thus calls for further research to examine these health promoting outcomes when employees are confronted with demanding leadership practices.

The results for hypotheses 2.1, 2.2 and 2.3 showed, that transformational leadership accounted for significant variance with emotional exhaustion, disengagement and engagement. Transformational leadership was a stronger predictor of wellbeing, than other leadership styles. Specifically, the transformational and engagement relationship was stronger than for any other wellbeing outcome measured. This finding upholds Schaufeli's (2015) leadership research in that supportive supervisory behaviours like transformational leadership function as a job resource. Thus, inspirational, people-oriented leadership was more likely, than other leadership styles to be related to emotional exhaustion and disengagement and increased engagement. Accordingly, employees observing transformational leadership behaviours had a greater propensity to be more energised and engaged with their work, and exhibited less emotional exhaustion, and disengaging work behaviours (Avolio and Bass, 2004;

Gregersen, Vincent-Höper & Nienhaus, 2014; Hetland, Sandal & Johnsen, 2007; Kashdan & Rottenburg, 2010). Leaders exhibiting, motivating, inspirational, considerate behaviours were found to enhance employee dedication and willingness to go the extra effort. This finding provides insight for organisations seeking to enhance employee engagement and overall wellbeing, which may deliver further beneficial outcomes in the form of reduced absenteeism, proactivity, increased job satisfaction, and productivity (Kuo et al., 2017; Schaufeli, 2012; Simpson, 2009).

In contrast to transformational leadership, transactional leadership behaviours were not related to reduce emotional exhaustion, disengagement, or engagement (H3.1, 3.2 & 3.3). The results fail to replicate other studies that found transactional leadership is positively related to employee wellbeing (Bass, 1985; Avolio & Bass, 2004; Hetland & Sandal, 2003; Hetland, Sandal & Johnsen 2007; Zwingmann, et al., 2014a). The minimal influence transactional leadership had on each wellbeing dimension may support Avolio and Bass's (2004) position, that transactional leadership in the form of corrective actions and contingent punishment can be underutilised in highly demanding work environments. As this sample was drawn from an industry known for being demanding and poorly resourced, transactional behaviours may have been underutilised and replaced by less active, passive avoidant leadership behaviours. This argument is supported by two correlational findings. Firstly, transactional leadership had a positive association with passive avoidant leadership and was negatively related to

transformational leadership. Secondly, transactional and passive avoidant leadership styles were both related to the key burnout component: emotional exhaustion.

The positive relationship between each leadership style, psychological flexibility and wellbeing indicates that job and personal resources in the form of supportive leadership practices and an employee's ability to evoke proactive goal orientated behaviour were the best predictors of engagement (Breevaart & Bakker, 2018; Kuo et al., 2017; Mauno et al., 2007). Transformational leadership was related to employees who identified as being engaged and possessing robust levels of psychological flexibility. Previous research conducted in non-clinical settings supports this, finding that psychological flexibility is positively related to proactive, energising and engaging outcomes (Hayes et al., 2006; Kuo et al., 2017). Others attest that psychological flexibility enhances engagement, because of its effect on enhancing an employee's satisfaction with their supervisor (Bond & Bunce, 2003).

The pattern of relationships suggests that when confronted by unfavourable job demands, employee's high in flexible behavioural responses can proactively engage (Kuo et al., 2017). Thus, employees, high in psychological flexibility working in non-frontline, transient occupations, with leaders behaving ineffectively, may assume personal control by consciously connecting with their challenging situation. This is supported by Schaufeli & Bakker, (2004) who found engagement acts as a health protective resource, that reduces the occurrence of

illness and absenteeism associated with detrimental health outcomes.

### **Limitations and Future Research**

Like all research, there are limitations. The reliance on cross sectional, self-reported data with a non-randomised sample restricted to the IT industry in Australasia raises concerns regarding the ability to generalise results and common method biases (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). As cross-sectional research methods were applied to understand the relationships and interaction effects between variables, time lagged influences may have impacted results (Coolican, 2009). Thus, it may be difficult to draw firm conclusions regarding the size of the effect and generalise beyond the researched cohort. While more difficult to achieve and costly to deliver the validity of future studies could be improved through longitudinal research. Scope could also be broadened to IT project-based work in other countries.

As the same respondents provided data on both predictor and criterion variables using a self-reported instrument, results may be influenced by potential sources of common method bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003; Coolican, 2009). For example, the high levels of psychological flexibility and engagement, and moderate emotional exhaustion reported by participants, suggests the possibility of positive and negative affectivity and social desirability bias, in the form of over and under estimated values. Common method bias could be reduced, and hypothesis testing strengthened by assessing participants on multiple constructs and instruments using longitudinal research (Podsakoff,

MacKenzie, Lee, & Podsakoff, 2003).

As the sample was targeted to capture the responses of professionals employed on IT project work, in Australasia, the sample was not randomly selected from a full range of industries. Consequently, the sample comprised largely white middle aged, highly educated professionals. Future studies may like to focus research efforts on other groups and countries. Nonetheless, findings of the present study appear consistent with others who conducted their research applying the JD-R model to IT project-based work (Demerouti, Mostert & Bakker, 2010; Hetland, Sandal & Johnsen, 2007).

There are concerns regarding the possibility of bias with over and under estimations as indicated by respondents reported high levels of psychological flexibility and lower levels of emotional exhaustion. While acknowledging self-reported instruments have their weaknesses, it could be argued that as wellbeing outcomes; emotional exhaustion, disengagement and engagement are subjectively grounded in the tension between job demands and resources that individual self-reporting is valuable (Kilfedder, Power & Wells, 2001).

A strength of this study was the sampling of IT professionals, on project-based work, across relatively unresearched workplace settings. Exploring the effects of job demands and resources in the form of leadership styles and psychological flexibility on employee wellbeing with IT professionals extended current JD-R and leadership theory. While no interactive effect was found, future studies could explore the relationships between leadership style, psychological

flexibility and employee wellbeing using a mixture of data collection methods such as participant diaries, observational techniques, interviews or critical incident logs (Coolican, 2009).

According to Sanchez-Cordona, Llorens-Gumbau & Soria (2018), employee wellbeing can be enhanced or harmed through specific leadership behaviours. Strong evidence supports the health enhancing effects of transformational leadership and the hampering effects of passive avoidant leadership (Avolio & Bass, 2004; Barling & Frone, 2016; Zwingmann et al., 2014a). Thus, organisations need to consider developing wellness programs that directly link effective leadership behaviours and psychological flexibility with employee wellbeing outcomes.

### **Organisational Implications**

Findings highlight the importance of organisations adopting workplace interventions that support a healthy, and productive work environment. Increasing employee's psychological flexibility and leader's transformational leadership practices, may enhance employee engagement and reduce burnout in IT project-based work. Thus, organisations need to assume responsibility for reducing the demands associated with poor leadership and improving the availability of personal resources of employees.

For organisations, the benefits of a healthier, more engaged workforce will be evident in reduced absenteeism, performance improvements and a reduction in unnecessary recruitment costs associated with high employee turnover (Bakker &

Demerouti, 2008; Blessing White, 2011; Gallup, 2014; Goh, Pfeffer & Zenios, 2016). Evidence finds leaders are the critical link between employee engagement and wellbeing (Gallup, 2014; Gregersen, Vincent-Höper & Nienhaus, 2014, Kuo et al., 2017; Zwingmann, Wegge, Wolf, Rudolf, Schmidt & Richter, 2014b). Organisations which recruited leaders with relationship building, visionary and motivational skills were identified as the most effective at developing employee engagement, which in turn enhanced employee wellbeing (Gallup, 2014; Schaufeli, 2012). While a complex issue, beyond the realms of this study, other research shows that organisations recruiting leaders high in proactive thinking and supportive interpersonal qualities, who promote wellbeing initiatives, increase employee psychological health (Bass, 2010; Kuo et al., 2017).

Supervisors need to be aware of the impact their behaviour has on the energy levels, resilience and wellbeing of their staff. Part of a supervisor's role is to provide the necessary resources such as support, vision, and guidance (Schaufeli, 2012). Socialisation and learning can reduce employee exhaustion and disengagement associated with indecisive, reactive, unresponsive supervisory behaviours (Avolio & Bass, 2004). Thus, programmes and processes that encourage empowering and motivating leadership behaviours should prove beneficial. Organisational initiatives that improve leadership practices lead to enhanced employee motivation, engagement and more productive relationships between supervisors and followers (Gallup, 2014, Schaufeli, 2012).

Research into transformational leadership programmes indicates positive

results such as reductions in the use of passive, avoidant and evasive supervisory practices ((Avolio & Bass, 2004; Bass, 2010; Bass & Avolio, 1994; Yukl, 2012). Supervisors should be trained in the range of interpersonal, critical thinking and self-reflexive skills required for developing transformational leadership outcomes (Avolio and Bass, 2004; Bass, 2010). In summary, this and other studies highlight the benefits of transformational leadership and the role of psychological flexibility for employees and organisations (Bond & Bunce, 2003; Bond et al., 2010; Kuo et al., 2017).

### **Employee Interventions**

While psychological flexibility did not buffer the detrimental effects associated with ineffective leadership practices, results showed that it was positively related to wellbeing. Based on this, workplace interventions that increase psychological flexibility should enhance employee engagement and wellbeing (Biron & van Veldhoven, 2012; Bond & Bunce, 2003; Kashan & Rottenberg, 2010). Therefore, even in unfavourable work situations employees who adopt non-judgemental mindfulness, that are receptive to modifying their behaviour towards valued goal achievement, have higher levels of engagement and are less emotionally exhausted (Biron & van Veldhoven, 2012; Bond & Bunce, 2003; Bond, Lloyd, Flaxman and Archer, 2015). Interventions that enhance psychological flexibility are increasingly being recognised as an effective approach for reducing emotional burnout and improve the overall wellbeing of employees (Bond & Bunce, 2003; Lloyd, Bond & Flaxman, 2013).

Some advocate for the effectiveness of incorporating mindfulness into wellbeing interventions for employees low in psychological flexibility (Bond & Bunce, 2003; Bond et al., 2010). Demographic differences identified in this study reveal that wellbeing initiatives should not be treated as a one size fits all solution. Thus, any programme or intervention needs to be aligned with an individual's needs, as well as an organisation's broader leadership and employee wellbeing goals.

## **Conclusion**

The current study suggests that expecting improvements in employee psychological flexibility to reduce the effects of demanding leadership practices is not an effective solution. Nonetheless, psychological flexibility is a construct that holds promising opportunities for ongoing research in work and organisational settings. Collectively, the results indicate that the wellbeing of employees is as much a corporate as it is individual responsibility. This highlights the importance of organisations developing upstream job and personal resources that contribute to employee wellbeing.

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## Appendix A:

### Ethics Approval. A Low Risk Notification Letter



Date: 13 February 2017

Dear Suzanne Davies

Re: Ethics Notification - 4000017221 - **The influence of leadership style and psychological flexibility on employee wellbeing.**

Thank you for your notification which you have assessed as Low Risk.

Your project has been recorded in our system which is reported in the Annual Report of the Massey University Human Ethics Committee.

The low risk notification for this project is valid for a maximum of three years.

If situations subsequently occur which cause you to reconsider your ethical analysis, please go to <http://rims.massey.ac.nz> and register the changes in order that they be assessed as safe to proceed.

Please note that travel undertaken by students must be approved by the supervisor and the relevant Pro Vice-Chancellor and be in accordance with the Policy and Procedures for Course-Related Student Travel Overseas. In addition, the supervisor must advise the University's Insurance Officer.

**A reminder to include the following statement on all public documents:**

*"This project has been evaluated by peer review and judged to be low risk. Consequently, it has not been reviewed by one of the University's Human Ethics Committees. The researcher(s) named in this document are responsible for the ethical conduct of this research."*

*If you have any concerns about the conduct of this research that you want to raise with someone other than the researcher(s), please contact Dr Brian Finch, Director - Ethics, telephone 06 3569099 ext 86015, email [humanethics@massey.ac.nz](mailto:humanethics@massey.ac.nz).*

Please note, if a sponsoring organisation, funding authority or a journal in which you wish to publish requires evidence of committee approval (with an approval number), you will have to complete the application form again, answering "yes" to the publication question to provide more information for one of the University's Human Ethics Committees. You should also note that such an approval can only be provided prior to the commencement of the research....

Yours sincerely

Dr Brian Finch  
Chair, Human Ethics Chairs' Committee and Director (Research Ethics)

Research Ethics Office, Research and Enterprise  
Massey University, Private Bag 11 222, Palmerston North, 4442, New Zealand T 06 350 5573; 06 350 5575 F 06 355 7973  
E [humanethics@massey.ac.nz](mailto:humanethics@massey.ac.nz) W <http://humanethics.massey.ac.nz>

# Appendix B:

## Questionnaire



### Information Page



### Exploration of the relationship between leadership and employee wellbeing in IT related project work

#### Information Sheet

I am conducting this research for my Master's thesis in psychology at Massey University. I'm looking at whether the relationships between constructive and destructive leadership and employee burnout and engagement are affected by employees' levels of psychological flexibility or resilience.

You are invited to participate in this research if you are an Australian or New Zealand person 18 years or over, and have been, or are employed full time on an Information Technology (IT) project related assignments for at least 6 months in Australia or New Zealand.

The online survey consists of a series of questions which are answered using rating scales. If you do not wish to answer a question, just skip it and go to the next question. You can have a break from the survey at any time, and if using the same computer, then browser cookies will return you to the same position for completion at a later time. Participation is voluntary, and the survey should not take longer than 15 minutes. All responses are anonymous.

I hope the research findings will create an understanding of how leadership styles relate to employee well-being, how workplace related psychological strain can be reduced, and motivation and engagement developed.

If you would like a summary of the findings, at the end of the survey you will be directed to another small survey page (not connected to the anonymous online survey) where you can provide your email address.

To continue, please click on the >> **Next** button at the bottom of this page which will take you to the survey.

Thank you,  
Suzanne Davies

#### Contact information

If you have any questions or queries regarding this project, please don't hesitate to contact the following:

**Researcher**  
Suzanne Davies  
School of Psychology  
Massey University  
Palmerston North  
New Zealand  
Email: [suzanne.davies.1@uni.massey.ac.nz](mailto:suzanne.davies.1@uni.massey.ac.nz)

**Supervisor**  
Dr Dianne Gardner  
School of Psychology  
Massey University  
Palmerston North  
New Zealand  
+64 6 3569-099 ext 43441  
[D.H.Gardner@massey.ac.nz](mailto:D.H.Gardner@massey.ac.nz)

**Te Kūnenga ki Pūrehuroa** | Massey University School of Psychology – Te Kura Hinengaro Tangata  
Palmerston North, New Zealand  
T +64 6 3569-099 ext 85071 : W [psychology.massey.ac.nz](http://psychology.massey.ac.nz)

*Massey University is committed to ensuring all research is conducted with integrity and in a responsible and ethical manner. While, this project has been evaluated by peer review and judged to be low risk, it has not been reviewed by one of the University's Human Ethics Committees.*

*The researcher(s) named above are responsible for the ethical conduct of this research.*

*If you have any concerns about the conduct of this research that you wish to raise with someone other than the researcher(s), please contact Dr Brian Finch, Director (Research Ethics), email [humanethics@massey.ac.nz](mailto:humanethics@massey.ac.nz).*

## Respondent Consent

Thank you for participating in this questionnaire.

Your participation implies consent.

You have the right to decline to answer any question.

I have read and understood the information sheet for this study and consent to the collection of my responses. *(Please click on the 'Yes' choice if you wish to proceed.)*

- Yes
- No

## Demographics

What is your gender?

- Female
- Male

What is your age?

- Under 17 years
- 18-34 years
- 35-54 years
- 55 years and over

What is the **highest** level of education you have completed?

- High school
- Polytechnic or Trade Certificate
- Undergraduate Degree Postgraduate
- Degree
- Doctoral Degree Professional
- Qualification

Which of the following best describes your current role?

- Management or Leadership Business or
- Systems Analyst
- Project Office, Technical Support or Administrative
- IT Change Specialist, Training or Subject Matter Expert
- Software Developer, Solution Architect or Infrastructure Specialist
- Security Analyst or
- Intrusion Specialist Other

Which of the following categories best describes your employment status?

- Previously employed on an IT related project
- Employed on an IT project, working 1 - 21 hours per week
- Employed on an IT project, working 22-36 hours per week
- Employed on an IT project, working 37 or more hours per week

In which country do you conduct your IT project work?

- New Zealand
- Australia
- Other

## OBI - Oldenburg Burnout Inventory

Below are a series of statements which you may agree or disagree with. Using the scale, indicate your degree of your agreement by selecting the number that corresponds with each statement.

	Strongly Agree	Agree	Disagree	Strongly Disagree
I always find new and interesting aspects in my work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There are days when I feel tired before I arrive at work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It happens more and more often that I talk about my work in a negative way.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
After work, I tend to need more time than in the past in order to relax and feel better.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can tolerate the pressure of my work very well.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lately, I tend to think less at work and do my job almost	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Strongly Agree	Agree	Disagree	Strongly Disagree
I find my work to be a positive challenge.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
During my work, I often feel emotionally drained.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Over time, one can become disconnected from this type of work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
After working, I have enough energy for my leisure activities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sometimes I feel sickened by my work tasks.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
After my work, I usually feel worn	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Strongly Agree	Agree	Disagree	Strongly Disagree
This is the only type of work that I can imagine myself doing.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Usually, I can manage the amount of my work well.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel more and more engaged in my work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I work, I usually feel energized.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## WAAQ

Below you will find a list of statements. Rate how true each statement is for you by selecting one of the options provided.

	never true	very seldom true	seldom true	sometimes true	frequently true	almost always true	always true
I am able to work effectively in spite of any personal worries that I have.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can admit to my mistakes at work and still be successful.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can still work very effectively, even if I am nervous about something.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Worries do not get in the way of my success.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	never true	very seldom true	seldom true	sometimes true	frequently true	almost always true	always true
I can perform as required, no matter how I feel.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can work effectively, even when I doubt myself.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My thoughts and feelings do not get in the way of my work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## UWES

The following 9 statements are about how you feel at work. Read each statement carefully and decide if you ever feel this way about your job. If you have never had this feeling, select 'never' by the statement. If you have had this feeling, indicate how often you feel it by the option that best describes how frequently you feel that way.

	Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Everyday
At my work, I feel bursting with energy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
At my job, I feel strong and vigorous.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am enthusiastic about my job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My job inspires me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I get up in the morning, I feel like going to work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Everyday
I feel happy when I am working intensely.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am proud on the work that I do.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am immersed in my work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I get carried away when I'm working.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## MLQ - Multifactor Leadership Questionnaire

The first questionnaire is used to describe your perception of the leadership style of a specific manager, leader or supervisor you have worked for, or are working for. This person should hold a management or leadership role equivalent to or higher than your own position on an IT related project you are or were involved with.

Rate how true each statement is for you by selecting one of the options provided.

Which best describes you?

*(Reminder, the person you're rating should hold an equivalent or higher organizational level role than yourself)*

- I am at a higher organizational level than the person I am rating. The
- person I am rating is at my organizational level.
- I am at a lower organizational level than the person I am rating. Other
- than the above.

Rate how frequently each statement fits the Manager, Leader or Supervisor you are describing by selecting one of the options provided.

	Not at all	Once in a while	Sometimes	Fairly often	Frequently, if not always
Re-examines critical assumptions to question whether they are appropriate.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fails to interfere until problems become serious.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Avoids getting involved when important issues arise.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Talks about his/her most important values and beliefs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is absent when needed.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Not at all	Once in a while	Sometimes	Fairly often	Frequently, if not always
Seeks differing perspectives when solving problems.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Talks optimistically about the future.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Instills pride in me for being associated with him/her.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Waits for things to go wrong before taking action.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Talks enthusiastically about what needs to be accomplished.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Not at all	Once in a while	Sometimes	Fairly often	Frequently, if not always
Specifies the importance of having a strong sense of purpose.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Spends time teaching and coaching.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Shows that he/she is a firm believer in "If it isn't broke, don't fix it."	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Goes beyond self-interest for the good of the group.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## MLQ - Multifactor Leadership Questionnaire Continued

Rate how frequently each statement fits the Manager, Leader or Supervisor you are describing by electing one of the options provided.

	Not at all	Once in a while	Sometimes	Fairly often	Frequently, if not always
Treats me as an individual rather than just as a member of a group.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Demonstrates that problems must become chronic before taking action.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Acts in ways that builds my respect.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Considers the moral and ethical consequences of decisions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Displays a sense of power and confidence.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Not at all	Once in a while	Sometimes	Fairly often	Frequently, if not always
Articulates a compelling vision of the future.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Avoids making decisions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Considers me as having different needs, abilities, and aspirations from others.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gets me to look at problems from many different angles.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Helps me to develop my .....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Not at all	Once in a while	Sometimes	Fairly often	Frequently, if not always
Suggests new ways of looking at how to complete assignments.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Delays responding to urgent questions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Emphasizes the importance of having a collective sense of mission.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Expresses confidence that goals will be achieved.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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## Acknowledgements

The researcher would like to acknowledge the use of the measures listed below, which have been used in this questionnaire.

Bass & Avolio (1995). Multifactor Leadership Questionnaire.™

Demerouti, E. (1999). Oldenburg Burnout Inventory.

Bond, F.W., Lloyd, J. & Guenole, N. (2013). The work-related acceptance and action questionnaire.

Schaufeli & Bakker (2003). The Utrecht Work Engagement Scale.

Thank you for completing this questionnaire.

Should you like to receive a copy of a summary report of the results of this research, please send your request to [suzanne.davies.1@uni.massey.ac.nz](mailto:suzanne.davies.1@uni.massey.ac.nz)