

**Conceptualizing and Measuring Employee Engagement, and
Examining the Antecedents of Leadership Styles and Personality
Attributes**

Omar Mohammed Ali Ababneh

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Primary Supervisor

Dr. Mark Le Fevre

Secondary Supervisor

Professor Tim Bentley

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Attestation of Authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the references), nor material which to a substantial extent has been submitted for the award of any other degree of a university or other institution of higher learning.

Omar Mohammed Ali Ababneh

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Abstract

Employee engagement has received wide attention over the last twenty years from the practitioner community and research scholars. It is claimed that organizations that focus on creating an engaging environment will reap significant benefits in terms of employee productivity, achievement of organizational goals, customer satisfaction, and talent retention (Kim, Kolb, and Kim, 2013; Kuntz and Roberts, 2014). However, fundamental issues revolving around the meaning, measurement, and key antecedents of employee engagement still require further research attention (Saks and Gruman, 2014). In response to these issues, this research aimed to examine the definitions of the engagement construct, develop a reliable and valid engagement scale, and, based on the definitional analysis, examine two key potential antecedents (leadership styles and personality attributes) of employee engagement.

An intensive review of the engagement literature was undertaken to identify the conceptual themes shared by the existing approaches to the construct. From this, a working definition of employee engagement was produced guiding the development of a measurement tool to tap each component of the proposed definition. Study I of the research examines the factorial structure, reliability, and discriminant validity of the newly developed engagement scale, using data from 449 employees in New Zealand. The results revealed that employee engagement is a multidimensional construct and internal consistency and discriminant validity of the newly developed instrument reported satisfactory levels.

Once the internal consistency, the factorial structure, and validity of the engagement scale had been tested and the final items for the engagement scale had been set (Study I), the second stage of collecting data (Study II) took place. Data gathered in this phase were used to do test-retest reliability, where using the same measurement tool and the same sample under the

same response conditions is seen necessary to establish repeatability (Allen and Yen, 1979). Thus, data of Study II were collected from 106 employees who had participated in Study I of the research. The results of Study II revealed that the internal consistency of the engagement scale, developed in Study I, was stable over the two studies.

In Study II, grounded in social exchange theory, it was hypothesized that leadership styles (transformational and transactional) and certain personality attributes (conscientiousness, extroversion, proactive, positive affect, and autotelic) are antecedents of employee engagement. The results of Study II also revealed that the hypotheses proposing relationships between transformational leadership, conscientiousness, and positive affect were supported. However, the hypotheses that propose associations between transactional leadership, extroversion, proactive, autotelic, as antecedents of employee engagement were not supported.

This research contributes to the existing theory surrounding employee engagement by providing empirical evidence about the dimensionality of the engagement construct and its distinctiveness from other well-established but similar attitudinal constructs. Further, the findings of the current study support the arguments of Macey and Schneider's (2008) state-trait like engagement and Robinson, Perryman, and Hayday's (2004) two-way relationship engagement. The significant associations found between employee engagement and its antecedents (transformational leadership, conscientiousness, and positive affect) emphasize that the level of engagement is influenced by the quality of the interaction between the person and the leader. This research also provides HR and organizational development practitioners with practical implications for designing and developing their interventions aiming at fostering and enhancing employee engagement in the workplace. Specifically, targeted

practical recommendations addressing several HR interventions (recruitment and selection, training and development, performance management, and job design) are presented.

Given that the scope of employee engagement is still wide and needs further investigation, a discussion of research limitations and suggestions for future research is also presented.

Chapter 1. Introduction

1.1 Rationale and Research Objectives

Over the past twenty years, organizations have been witnessing a dynamic, competitive, and rapidly changing business-environment where the focus has shifted to investing in the workforce, fostering employees' adaptation to environmental constant changes, and developing new strategies for managing talents and encouraging innovative behaviours. Human resources professionals, in particular, have been under pressure to provide meaningful and effective approaches, tools, and techniques to recruit and retain a qualified, adequate, and talented workforce (Purcell, 2014; Shuck and Wollard, 2010). Organizations need employees who are adaptive to changes, proactive, energetic, creative, and persistent during challenges. It was to address these needs that the construct of employee engagement has become popular, as a means to boost labor productivity, remain competitive in a highly competitive global economy, and achieve organizational success.

Employee engagement has received widespread attention from human resource practitioners, consultancy firms, and academics, who reported that it plays a vital role in enhancing organizational productivity, employee retention, customer satisfaction, and achieving competitive advantage (e.g., Kim et al., 2013; Kuntz and Roberts, 2014). Several studies have reported that employee engagement contributes significantly to organizational performance and effectiveness. For example, Macey, Schneider, Barbera, and Young (2009) found that, among 65 organizations selected from different industries, engaged employees showed a greater return on profitability, assets, and shareholder value compared to disengaged employees. Other researchers report that those organizations investing in engaging their workforce will reap significant benefits (e.g., Shuck, Rocco, and Albornoz,

2011). However, it has also been reported that the level of engagement has declined. For example, it is estimated that about 30% of workers are partially engaged and that there have been engagement declines in the markets worldwide (Chalofsky, 2010; Gebauer and Lowman 2008). The Gallup organization has also recently reported, in their studies on 100 million American full-time employees, that only 30% of employees are actively engaged, 50% are neutral, and 20% are actively disengaged (Gallup, 2013).

In spite of the professional reports and scholarly arguments that emphasize the positive outcomes of having a fully engaged workforce, contradictions, ambiguity and knowledge gaps can be found in the employee engagement literature. One gap revolves around the definition of employee engagement, whether it is a unique construct or a repackaging of traditional well-known constructs. Indeed, there is no general agreement on a definition of employee engagement among either scholars or practitioners (Fearon, McLaughlin, and Morris, 2013; Maslach, 2011; Purcell, 2014). Employee engagement has been defined as cognitive, emotional, and behavioural self-employment during task performance (Czarnowsky, 2008; Kahn, 1990; Saks, 2006; Shuck and Wollard, 2010). Others interpreted the concept as work passion (Zigarmi, Nimon, Houson, Witt, and Diehl, 2009), the positive antithesis of burnout (Maslach and Leiter, 1997), and “characterized by vigor, dedication, and absorption” (Schaufeli, Salanova, Gonzalez-Roma, and Bakker, 2002, p.74). In addition, the concept was linked to well-established perceptual constructs such as involvement, satisfaction, and organizational commitment (Christian, Garza, and Slaughter, 2011; Harter, Schmidt, and Hayes, 2002; Newman and Harrison, 2008; Newman, Joseph, Sparkman, and Carpenter, 2011). Further, it was stated that engagement is promoted by several forms of efficacy and levels of organizational interactions (Fearon et al., 2013) or as a multidimensional construct consisting of three separate but related constructs: trait, state, and

behaviour (Macey and Schneider, 2008). These contradictions within the definitions of employee engagement call for scholars to conduct empirical studies, based on solid theoretical grounds, to provide a clear definition of the construct, models, and applications that meet the practitioners and consultants' expectations.

Due to the variable definitions, there is also little agreement as to the key predictors of engagement. For example, Kahn (1990) found that the psychological conditions of meaningfulness, safety, and availability significantly affect employee engagement. Maslach and Leiter (2008) considered the six areas of work life (workload, control, reward, community, fairness, and values) as the major antecedents of engagement and burnout. Job demands, job resources, and job characteristics have received wide attention and were found to be factors influencing employees' decisions to engage (Bakker, Demerouti, and Sanz-Vergel, 2014; Koyuncu, Burke, and Fiksenbaum, 2006; Kuntz and Roberts, 2014; Mauno, Kinnunen, and Ruokolainen, 2007; Ram and Prabhakar, 2011; Saks, 2006; Schaufeli and Bakker, 2004). Recently, organizational culture and climate were also found to be associated with employee engagement (Shuck and Reio, 2014; Suharti and Suliyanto, 2012; Timms, Brough, O'Driscoll, Kalliath, Siu, Sit, and Lo, 2015).

Another issue found in the engagement literature concerns the reliability and validity of the existing measures of employee engagement. It can be argued that any measure of the construct would be more accurate and valid if it provides common items linked to a clear and agreed definition (Albrecht, 2010; Macey and Schneider, 2008; Newman et al., 2011, Truss, Delbridge, Alfes, Shantz, and Soane, 2014). Thus, it is important to have a construct conceptualized first so the instruments designed to measure it will validly assess the construct as whole, rather than partial aspects of the construct or other related constructs.

Against this background of inconsistency in defining, measuring, and identifying the predictors of employee engagement, this research aims to reduce the ambiguity revolving around the construct by conceptually defining employee engagement, constructing a new reliable and valid measure for it, and examining the two potential antecedents to employees' decisions to engage, namely leadership styles and personality traits. More specifically the research will seek to:

1. Develop a reliable and valid measure of employee engagement, consistent with a theoretically derived definition of engagement.
2. Explore the relationships between two potential antecedents (leadership styles and personality attributes) and employee engagement.

1.2 Research Design

Selecting an appropriate design is based on the research topic, problem, objectives, and hypotheses as each design influences the direction of the research and requires a different decision making mechanism (Neuman, 2003). As reaching a large number of heterogeneous participants (different in age, occupation, position, tenure, gender, or location) is important and serves the research objectives, a quantitative approach was followed. This approach is appropriate when the focus is to statistically test the reliability and validity of instruments (Cohen and Swerdlik, 1999). It is also appropriate for quantifying data and generalizing results of correlational studies (Neuman, 2003); the present research examines the statistical relationships between employee engagement and two possible antecedents (leadership styles and personality attributes). Specifically, the stage of collecting data took place in two studies: Study I was conducted to test the reliability and discriminant validity of the engagement scale, whilst Study II was conducted to examine the variation of measurement (test-retest

reliability) and provide empirical evidence about the possible relationships between employee engagement, and leadership and personality attributes. Table 1.1 details the research model utilized in the current study.

Table 1.1

Research Model		
Objective	Action	Chapter
Conceptualization	Develop a theoretically derived definition of employee engagement.	Chapter 2
Measurement Development	Generate items from the existing measures of engagement.	Chapters 3& 5
	Select and write items that represent all components of the proposed definition.	Chapter 5
Scale reliability and discriminant validity (Study I)	Collect data by self-report questionnaire (posted survey).	Chapter 5
	Examine the factorial structure of the engagement construct (exploratory and confirmatory factor analyses).	Chapter 5
	Define the final set of the instrument's items.	Chapter 5
	Test scale's internal consistency.	Chapter 5
	Examine the discriminant validity of the engagement instrument.	Chapter 5
Test-Retest Reliability and Hypotheses Testing (Study II)	Collect data self-report questionnaire (Online survey).	Chapter 6
	Report test-retest reliability.	Chapter 6
	Test the associations between employee engagement and its antecedents (leadership styles and personality attributes).	Chapter 6

1.3 Thesis Outline

The thesis is divided into seven chapters. In the first chapter, the researcher explores the rationale for studying employee engagement, discusses how this study is significant to both: theory and practice, and defines the framework on how the study was conducted. The various definitions of the construct and issues revolving around its meaning are discussed in Chapter Two. The third chapter discusses, in depth, various measures found in the engagement literature, and highlights the need for designing a new scale that includes items assessing all components of the working definition proposed in Chapter Two. Chapter Four introduces an in-depth review of the engagement literature undertaken to identify theoretical frameworks and the range of predictors. The research was conducted in two distinct studies aiming to develop a measure of the working definition of employee engagement outlined in Chapter Two, and to test the hypotheses regarding its antecedents stated in Chapter Three. Study I, reported in Chapter Five, was designed to test the reliability of the newly developed measure of engagement and its discriminant validity amongst other well-established attitudinal constructs (job satisfaction, job involvements, and organizational commitment). Specifically, Chapter Five details the method followed in Study I including the initial steps of instrument development, the procedure to be undertaken in carrying out the research, the participants recruited to take part in Study I, and the ethical considerations pertaining to this phase of data collection. The results and findings of reliability and validity tests are also detailed in Chapter Five. Study II, reported in Chapter Six, was designed to further validate the measure of engagement developed in Study I and to test the generated hypotheses regarding leadership and personality attributes. Both studies employ self-report questionnaires but the overall design is longitudinal such that all participants in Study I were invited to participate in Study II. This was essential to conduct test-retest reliability of the engagement measure. Further,

Chapter Six details the method followed in Study II including the procedure undertaken in collecting data, the participants recruited to take part in Study II, and the ethical considerations pertaining to that phase of data collection. Finally, interpretation of the study findings, in the context of previous research and by relating them to the relevant theory, theoretical contributions, and practical implications are discussed in depth in Chapter Seven.

Chapter 2. Definitions of Employee Engagement

The meaning of employee engagement has been controversial and suffered from a lack of consensus among practitioners and engagement scholars about its distinctiveness from other well-established attitudinal constructs. In an attempt to identify a common language about the meaning of the engagement construct, a historical review of the development of employee engagement as a construct will be introduced. Thus, the commonalities and contrasts between employee engagement and other related constructs (job involvement, job satisfaction, organizational commitment, and organizational citizenship) will be analysed. From this analysis, the aim is to put forward an operational definition of the construct.

Kahn (1990) introduced the earliest definition of employee engagement to appear in the academic literature. Kahn (1990) refers to engagement as the ‘psychological presence’ of individuals who behave out of momentary attachments and detachments during role performance. They simultaneously act and connect themselves to their work and others. Kahn defined engagement as “the harnessing of organizational members’ selves to their work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances” (p. 694). In addition, he defined personal disengagement as the “uncoupling of selves from work roles; in disengagement, people withdraw and defend themselves physically, cognitively, and emotionally during role performance” (p. 694). According to Kahn (1990), employees are fully engaged when they invest and display all aspects of themselves (physical, emotional, and cognitive) when performing their tasks, while disengaged individuals break away and dissociate themselves from their roles.

Kahn (1990) posited that meaningfulness, safety, and availability are the main domains that explain why individuals engage in work. Meaningfulness was defined as the individual's self-investment in role performance, which enhances his/her positive sense of self-return; safety is the ability to show the individual's self without negative consequences or fear to self-image, career, or status, and availability is an individual's sense to possess the emotional, physical, and psychological resources needed for task completion.

Building on Kahn's work, Maslach and Leiter (1997) emphasized the notion of positive psychological states. A meaningful, valuable, and challenging job provides the platform for enhancing engagement, while the absence of these job characteristics results in negative states of burnout. Their work on the engagement concept took two different but related paths. Firstly, the authors conceptualized engagement as the positive antithesis of burnout (exhaustion, cynicism, and ineffectiveness). Low ratings on the exhaustion and cynicism suggest high levels of energy and meaningful involvement respectively; however, high ratings correspond with burnout. Conversely, high ratings on professional efficacy are assumed to manifest effectiveness and low ratings correspond to burnout. Accordingly, they defined engagement as "characterized by energy, involvement, and efficacy, the direct opposites of the three burnout dimensions" (Maslach and Leiter, 1997, p. 416).

Schaufeli et al. (2002) challenged the burnout/engagement perspective and introduced another conceptualization of engagement. They challenged the notion of considering absorption as the direct opposite of reduced efficacy of burnout. In addition, they argued that it is not necessary for individuals to experience energy when they do not feel exhausted. Further, they noted that the Maslach's Burnout Inventory (MBI) consists of only negatively worded statements and it is not possible to conclude that participants who reject negatively worded items would automatically accept positively worded ones. Thus, they considered

engagement and burnout as two distinct concepts that should be measured independently with different measures. Therefore, they defined engagement as “a positive, fulfilling, and work-related state of mind that is characterized by vigor, dedication, and absorption” (Schaufeli et al. 2002, p. 74). Vigor refers to the individuals’ mental resilience and high levels of energy during task performance, and their willingness to put extra effort in their work and to display persistence in facing difficulties. Dedication refers to the individual’s sense of enthusiasm, significance, pride, inspiration, and challenge, while absorption describes individuals who are deeply engrossed and fully focused while performing tasks. Along similar lines, Bakker et al. (2014) also challenged the notion that engagement is the positive antithesis of burnout, and proposed different antecedents and consequences for each construct. For instance, job resources and personal resources were identified as key antecedents of engagement, whilst job demands were found to be key predictors of burnout. Newman and Harrison (2008), in their attempt to integrate conceptual overlaps between state engagement and the higher order attitudinal constructs such as overall job attitude, argued that Schaufeli et al.’s (2002) vigor, dedication, and absorption are just traditional terms and add nothing to the conceptual clarity of the engagement construct. In their study, they mapped out a conceptual comparison showing the redundancy of the Utrecht Work Engagement Scale (UWES) items, developed by Schaufeli et al. (2002), with those used in well-known instruments of organizational commitment, job satisfaction, and job involvement. For example, Newman and Harrison (2008) noted that the item “I find the work I do full of meaning and purpose (Dedication 1)” is typically similar to “This organization has a great deal of personal meaning for me (Organizational Commitment)” by Meyer, Allen, and Smith, (1993), and the item “I am enthusiastic about my job (Dedication 2)” is similar to “Most days I am enthusiastic about my work (Job Satisfaction)” by Brayfield and Roth, (1952). Further,

the item “My job inspires me (Dedication 3)” is similar to “This organization really inspires the very best in me in the way of job performance (Organizational Commitment)” by Mowday, Steers, and Porter, (1979), while the item “Time flies when I am working (Absorption 1) is similar to “For me, mornings at work really fly by (Involvement)” by Lodahl, and Kejner, (1965). Depending on that comparison, Newman and Harrison (2008) concluded that it is still possible to have a new construct as a general higher order factor to mediate between previous attitude constructs and engagement (similar to Newman et al., 2011). Therefore, the authors conceptualized employee engagement as a higher order construct reflected by job satisfaction, organizational commitment, and involvement that underlies the co-variation among withdrawal, organizational citizenship, and job performance.

Further, Newman and Harrison (2008) emphasized what Harter et al. (2002) earlier argued; that engagement should be examined at the business unit level (work group), rather than the individual level, where engaged employees are emotionally connected to each other and cognitively present. Harter et al. (2002) defined engagement as “the individual’s involvement and satisfaction with, as well as enthusiasm for, work” (p. 269). In a meta-analysis of findings from 198,514 respondents selected from 7,939 business units across multiple fields, Harter et al. (2002) linked high levels of employee engagement at the unit level to the organizational outcomes (profit, customer satisfaction, turnover, loyalty, and safety). Harter et al. (2002) used the Gallup Workplace Audit (GWA), which is considered as a contemporary satisfaction measure that describes the work conditions presumed to signify engagement rather than measuring engagement as a psychological state (Schaufeli and Bakker, 2010). This adds to the confusion revolving around the meaning of employee

engagement, whether it is a work practice (Harter, et al., 2002) or a psychological state (Kahn, 1990; Macey and Schneider, 2008).

In addition, Saks (2006) introduced an inclusive definition of employee engagement that it is developed from cognitive, emotional, and behavioural components. In a study examining the drivers and consequences of employee engagement, Saks (2006) provided a bridge connecting the early theories of engagement, in the academic community and professional literature, by defining engagement as “A distinct and unique construct that consists of cognitive, emotional, and behavioural components that are associated with individual role performance” (p. 602). Drawing on social exchange theory, Saks (2006) argued that employees vary in their levels of engagement according to the resources they receive from the organization. He also distinguished between job engagement (individuals are psychologically present at their work roles) and organizational engagement (individuals are psychologically present by performing in a way that positively contributes to the organizational growth and goals achievement). Although Saks’ (2006) multidimensional approach is with value, breaking engagement into two separate but related constructs adds to the confusion revolving around the meaning of engagement.

Similarly, drawing on each individual author’s definition of engagement, the construct has been labelled with different names. For instance, the construct was called “work engagement” (refers to individuals’ relationships with their actual work, Christian et al., 2011; Schaufeli et al., 2002), “job engagement” (Rich, LePine, and Crawford, 2010), and “employee engagement” (Macey and Schneider, 2008). Here, it is argued that it is more comprehensive to name the construct as “employee engagement” to include the self and organizational dimensions of the construct. Engaged employees are characterized by their tendency to exert high levels of energy and activation while performing their daily tasks,

reach the extra mile of performance, and display proactive behaviours that help achieving organizational objectives and winning the competitive advantage (Kim et al., 2013; Kuntz and Roberts, 2014).

Recently, several debates emerged arguing whether it is best to define engagement as a stable trait (individuals engage differently according to their trait like variables of personality), a temporal state (engagement varies within the individual in certain occasions), or a stable state (individuals who possess certain engagement traits remain engaged in all occasions), (Christian et al., 2011; Dalal, Brummel, Wee, and Thomas, 2008, Macey and Schneider, 2008; Shuck and Wollard, 2010).

Kahn (1990) postulated that engagement flows and ebbs according to individuals' interactions with surrounding conditions and day level fluctuations. In Kahn's psychological state, individuals manifest their feelings, thoughts, relationships and inclinations in behaviour according to their experience of meaningfulness of work, sense of safety, and availability of resources. Similarly, Christian et al. (2011) conceptualised employee engagement as a state rather than a trait; they defined engagement as the "relatively enduring state of mind referring to simultaneous investment of personal energies in the experience of work" (p. 95).

Macey and Schneider (2008) posited that engagement is a multidimensional construct that has three distinct facets: trait engagement, state engagement, and behavioural engagement. Trait engagement refers to "the inclination or orientation to experience the world from a particular vantage point" (p. 5). They claimed that it is possible to identify certain individual characteristics that enable certain employees to be highly engaged. State engagement is considered as the second facet of engagement that leads to behavioural engagement. It encompasses attitudinal constructs of involvement, satisfaction, empowerment, and

organizational commitment (pp. 5-6). Behavioural engagement is defined as “adaptive behaviour intended to serve individual and organizational purposes, whether to defend and protect the status quo in response to actual or anticipated threats or to change and/or promote change in response to actual or anticipated events” (p. 6).

Although Macey and Schneider defined engagement as a construct containing trait-like and state-like components, their division of the construct into three separate facets has been widely criticized. In response, Dalal et al. (2008), Newman and Harrison (2008), and Newman et al. (2011) all considered that breaking the engagement construct into separate but related facets adds more to the ambiguity surrounding the construct rather than less. They posited that, within Macey and Schneider’s division of the construct, it becomes difficult to delineate the antecedents and consequence of the construct; what is called trait engagement is better to be referred as dispositional antecedents while behavioural engagement is better to be considered as consequences of engagement.

Dalal et al. (2008) argued that the existing empirical studies, that defined engagement as a cognitive-affective construct with temporal stability, have exclusively measured the construct as trait (individuals with certain personality attributes remain engaged over a long period). To assess state engagement, the data should be collected multiple times: daily, hourly, and even momentary within individual variability in performance related energy and absorption. In other words, Dalal et al. (2008) stated that naming the engagement construct as a state is misleading since the current measures do not reflect the true meaning of state: the variation over a short period of time within-person. Again, Dalal et al.’s breaking of the construct into two separate facets (state and trait) is misleading as it is difficult to differentiate between the antecedents, consequences, and the actual components of the engagement construct (Newman and Harrison, 2008). Thus, the trait-like and state-like perspective is

more comprehensive to explain the mechanism of building engagement. Employee engagement is a construct that denotes an interaction between individuals' inner forces (personal attributes and cognition), and external stimuli; individuals function in an interactive manner where their personal attributes, cognitive, and behaviour interact with environmental conditions to generate their actions toward the desired outcomes (Zigarmi et al., 2009).

Newman and Harrison (2008) and Newman et al. (2011) also disagreed with Macey and Schneider's definition of behavioural engagement. They considered behavioural engagement as a higher order construct (A Factor) that underlies the co-variation among withdrawal, organizational citizenship, and job performance. They argued that Macey and Schneider in their definition of behavioural engagement deliberately excluded the focal work role behaviour of being a good citizen and doing the job well. They suggested that engagement is only achieved when people experience time and energy in their work role. Thus, it is understood from their argument that state engagement is typically equivalent in concept and measurement to affective factor (overall job attitudes) and the latter results in encouraging conditions for engagement behaviours (being a good citizen, performing what is expected, and being attendant) to occur.

Further, Zigarmi et al. (2009) advocated the term "work passion" to replace the term engagement, since the latter had been widely associated with the previous academic studies of organizational commitment, job involvement, and organizational citizenship behaviour. They argued that the term "Work Passion" is more comprehensive than the term "engagement" and defined it as employee work passion that relates to "an individual's persistence, emotional positiveness, meaning-based, and state of wellbeing stemming from reoccurring cognitive and affective appraisals of various job and organizational situations that result in consistent, constructive work intentions and behaviours" (Zigarmi et al., 2009,

p. 310). Again, labelling engagement with “work passion” does not solve the issue revolving around its meaning and does not explain the mechanism of how engagement can be created in the workplace.

Recently, the theme “Identification” (individuals are aware of how their role performance is linked to the achievement of organizational objectives, has been proposed as a component of the engagement construct. For instance, Shanmugam and Krishnaveni (2012) described engaged employees as those who dedicate their role performance and put in extra effort to assist the organization achieve its objectives. Along similar lines, Witemeyer, Ellen, and Straub (2013) defined engagement as the individual’s employment of self-psychological empowerment, vigor, absorption, dedication, and motivation to serve the organization’s goal accomplishment. Further, Schaufeli (2014) stated that the current definitions of employee engagement are rather narrow; he called for a broader conceptualization of the construct that includes the behaviours engaged employees display while striving to achieve organizational goals. Although individuals’ identification with role performance and organizational goals is included in those earlier definitions, the widely used measures of engagement (e.g. the GWA; Harter et al., 2002; UWES; Schaufeli, et al., 2002) do not include items that reflect this behavioural aspect of engagement.

Table 2.1 summarises the more influential definitions used for employee engagement noted above, together with others less influential. It can be noted that there are at least two broad definitions of employee engagement: Kahn’s (1990) psychological perspective and Schaufeli et al.’s (2002) early burnout perspective. Although the two perspectives share some similarities, especially in considering engagement as a multidimensional construct, they still differ in several ways. For instance, Kahn (1990) introduced the notion of personal engagement determined by three psychological conditions (meaningfulness, safety, and

availability), while Schaufeli et al. (2002) concentrated on the “energy” and “activation” dimensions of engagement that are shaped by work-related conditions (job demands and job characteristics). Others (e.g. Saks, 2006) have conceptualized engagement at the organizational level; engaged employees display high levels of business-awareness and contribute towards the achievement of organizational goals. In addition, the trait-state notion remains an unresolved issue; whether engagement is created due to individuals’ personality attributes, the influence of the surrounding environment, or the interaction between personal and organizational factors. This has led to disagreement about what aspects should be included in the definition of the construct. It should be clear from the above that there is room for improved clarity in how the engagement construct is defined and that there have been changes over time (see Figure 2.1).

Further, a strong debate, that emerges from an analysis of the literature, concerns the distinctiveness of the engagement construct from other work attitudes and states (Macey and Schneider, 2008; Rich et al., 2010). A failure to conceptually differentiate engagement from other perceptual constructs risks error measurement, as only partial aspects of the construct are measured or other related constructs are included (Briner, 2014; Saks and Gruman, 2014). Others have suggested that the construct of engagement is not actually a new idea at all, using analogies such as “same lady but different dress” (Schohat and Vigoda-Gadot, 2010, p. 98) and “old wine in new bottles” (Jeung, 2011). Thus, investigating the distinctiveness of employee engagement amongst other attitudinal constructs remains an unresolved issue and needs to receive further academic attention (Saks, and Gruman, 2014).

Table 2.1
Literature of Employee Engagement

Author(s)	Definition	Major Contribution	Research Type	Measure	Participants
Kahn (1990)	“The harnessing of organizational members’ selves to their work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances” (Kahn, 1990, p. 694).	Kahn is considered the first who provided the early academic frame work of employee engagement. He defined employee engagement as a unique construct by introducing the physical, cognitive, and emotional self-employment engaged employees express during performing their roles.	Empirical	Untitled tool (a 14 item scale), In-depth interviews, and observation.	16 summer camp counsellors/USA and 16 employees of an architecture firm/USA
Maslach and Leiter (1997)	“Engagement is an energetic state in which one is dedicated to excellent performance of work and confident of one’s effectiveness” (Maslach and Leiter, 1997, p. 209).	Maslach, Schaufeli, and Leiter (2001) conceptualized employee engagement as the positive antithesis of burnout. They introduce the Maslach Burnout Inventory (MBI-GS) as a measurement tool of engagement.	Conceptual	Maslach Burnout Inventory (MBI-GS).	-----
Rothbard (2001)	Engagement is defined as the psychological presence and it consists of two main components: Attention	The study introduced an engagement model that addresses individuals’ engagement in work	Empirical	Untitled tool: a nine-item scale	790 respondents selected from a diverse workforce

Author(s)	Definition	Major Contribution	Research Type	Measure	Participants
	and Absorption. Attention “refers to cognitive availability and the amount of time one spends thinking about a role”. Absorption “means being engrossed in a role and refers to the intensity of one’s focus on a role” (p.656).	and family roles.			working in a public university.
Schaufeli, Salanova, Gonzalez-Roma, and Bakker (2002)	“Engagement is defined as a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption. Vigor is characterized by high levels of energy and mental resilience while working, the willingness to invest effort in one’s work, and persistence even in the face of difficulties. Dedication is characterized by a sense of significance, enthusiasm, inspiration, pride, and challenge. Absorption, is characterized by being fully concentrated and deeply engrossed in one’s work” (Schaufeli et al. 2002, p. 74).	Schaufeli et al. (2002) considered absorption as a distinct element of engagement and it is not the direct opposite of reduce efficacy of burnout.	Empirical	Utrecht Work Engagement Scale (UWES)	314 students selected from the University of Castell’on/Spain and 619 employees selected from 12 public and private organizations/Spain
Harter, Schmidt, and Hayes (2002)	“Employee engagement refers to the individual’s involvement and satisfaction with as well as enthusiasm for work” (Harter et al., 2002, p. 269).	Harter et al. (2002) referred engagement to two well-known constructs: involvement and satisfaction. Also, they linked engagement-satisfaction at the unit level to the unit outcome (Profit).	Empirical	Gallup Workplace Audit (GWA)	198,514 respondents selected from 7,939 business units across multiple fields.

Author(s)	Definition	Major Contribution	Research Type	Measure	Participants
Robinson, Perryman, and Hayday (2004)	“A positive attitude held by the employee toward the organization and its values. An engaged employee is aware of the business context, works with colleagues to improve performance within the job for the benefit of the organization. The organization must work to nurture, maintain and grow engagement, which requires a two-way relationship between employer and employee” (Robinson et al., 2004, p. 3)	Robinson et al. (2004) defined engagement as the positive attitude resulting from the interaction between the employees and their organization and its values.	Empirical	A twelve-item scale that measures the 12 engagement statements of Institute Employment Studies (IES).	10024 respondents selected from 14 organizations within the National Health Service/UK.
Saks (2006)	“A distinct and unique construct that consists of cognitive, emotional, and behavioral components that are associated with individual role performance” (p. 602).	<p>Saks (2006) introduced an inclusive definition of employee engagement, derived from previous literature (Kahn 1990), that it is developed from cognitive, emotional, and behavioral components.</p> <p>He presented the social exchange model of engagement and provided the first explicit research to connect the drivers of employee engagement to its consequences.</p> <p>Also, he distinguished between job engagement and organizational engagement.</p>	Empirical	Untitled tool: a five-item scale to measure job engagement and a six-item scale to measure organizational engagement.	102 employees jobs selected from various jobs and organizations in Toronto/ Canada
Czarnowsky (2008)	“Engaged employees are those who are “mentally and emotionally invested in their work and in contributing to their employer’s	It is the first major study on employee engagement published by the American Society for Training and Development	Empirical	Untitled tool: a survey of 19 items was e	776 responses were received from human resource

Author(s)	Definition	Major Contribution	Research Type	Measure	Participants
	success” (Czarnowsky, 2008, p. 9)	(ASTD)		mailed to the target respondents. 14 multiple items were used to measure engagement and 5 items were geared to the demographics of the participants.	professionals and learning executives represented various global organizations and industrial fields.
Macey and Schneider (2008)	Trait engagement refers to “the inclination or orientation to experience the world from a particular vantage point” (p. 5). State engagement is considered as the second facet of engagement that leads to behavioral engagement. It encompasses attitudinal constructs of involvement, satisfaction, empowerment, and organizational commitment (pp. 5-6). Behavioral engagement is defined as “adaptive behavior intended to serve an organizational purpose, whether to defend and protect the status quo in response to actual or anticipated threats or to change and/or promote change in response to actual or anticipated events” (p. 6).	Macey and Schneider (2008) were the first who drew parallels from previous concepts and research and defined each as a distinct facet that contributes to one another in the engagement construct. They conceptualized engagement as multidimensional construct consisting of three separate but related constructs: trait, state, and behavior.	Conceptual	-----	-----

Author(s)	Definition	Major Contribution	Research Type	Measure	Participants
Newman and Harrison (2008)	Employee engagement is just the higher order construct reflected by job satisfaction, organizational commitment, and involvement and it underlies the co-variation among withdrawal, organizational citizenship, and job performance.	Newman and Harrison (2008) defined engagement as a higher order behavior (E Factor) where individuals invest their energy and time into their work roles.	Conceptual	-----	-----
Zigarmi, Nimon, Houson, Witt, and Diehl (2009)	“Employee work passion is an individual’s persistent, emotionally positive, meaning-based, state of wellbeing stemming from reoccurring cognitive and affective appraisals of various job and organizational situations that results in consistent, constructive work intentions and behaviors” (Zigarmi et al., 2009, p. 310).	<p>Zigarmi et al. (2009) advocated the term work passion to replace the term engagement since the latter was widely associated with the previous academic studies of organizational commitment, organizational citizenship behavior, involvement, burnout, and organizational behavior.</p> <p>They argued that work passion is more comprehensive than engagement to be associated with affective, cognitive, and behavior components derived from the appraisal literature and the social cognitive theory.</p>	Conceptual	-----	-----
Shuck and Wollard, (2010)	“Engagement is an individual employee’s cognitive, emotional, and behavioral state directed toward desired organizational outcomes” (Shuck and Wollard, 2010, p	The authors emphasized the original idea of Kahn (1990) that engagement has three separate but relevant levels: cognitive, emotional, and behavioral	Conceptual	-----	-----

Author(s)	Definition	Major Contribution	Research Type	Measure	Participants
	103).	states.			
Kanste (2011)	“Engagement is an affective-motivational state, refers to an individual’s cognitive ability to be energetic and resilient at work as well as persistent in difficulty times” (Kanste, 2011, p.760).	Kanste (2011) argued that engagement and commitment are distinctive constructs. They complement each other and they describe different types of positive attitudes of employees towards their work and organization.	Empirical	Utrecht Work Engagement Scale (UWES)	435 respondents selected from 4 hospitals and 14 health centers in Northern Finland.
Christian, Garza, and Slaughter (2011)	“Engagement is defined as a relatively enduring state of mind referring to the simultaneous investment of personal energies in the experience or performance of work” (Christian et al., 2011. p. 95)	Christian et al. (2011) argued that engagement correlates to other attitudinal constructs but it is still distinct since it is aligned to task-specific motivation. That explains its strong relation with task and contextual performance.	A quantitative review of Literature	-----	-----
Shuck, Rocco, and Albornoz, (2011)	“Engagement is defined as a holistic experience perceived and then interpreted through the lens of each individual based on their own experience, rationales and views of their context” (Shuck et al., 2011, p. 316).	Shuck et al. (2011) defined engagement from employees’ perspectives. They argued that engagement is an outcome of the interaction between the environment (tangible and intangible elements) and the person (internal and external Characteristics).	Empirical	Document analysis, semi-structured interviews, and observations.	The participants were selected from a large multinational service corporation located in Miami-Dade County, Florida/USA

Author(s)	Definition	Major Contribution	Research Type	Measure	Participants
Shanmugam and Krishnaveni (2012)	Engagement refers to “the degree of one’s allegiance of self-in-role towards one’s company and the extra effort put in, to help the firm achieve its goals” (p. 190).	Engaged employees are aware and link their role performance with the achievement of the organizational objectives.	Conceptual	-----	-----
Soane, Truss, Alfes, Shantz, Rees, and Gatenby (2012)	Drawing on Kahn’s (1990) psychological conditions, the authors introduced three dimensions of engagement. Intellectual engagement is conceptualized as “the extent to which one is intellectually absorbed in work”, affective engagement refers to “the extent to which one experiences a state of positive affect relating to one’s work role”, and social engagement refers to “the extent to which one is socially connected with the working environment and shares common values with colleagues” (p. 532).	Social engagement was introduced as a new facet of the engagement construct.	Empirical	The 9-item ISA engagement Scale.	A cross-sectional study was conducted on two samples in UK: 278 from a manufacturing organization and 683 from a retail organization.
Witemeyer, Ellen, and Straub (2013)	Engagement is defined as “an attitude towards one’s work in one’s organization, comprising feelings of vigor, dedication, and absorption; cognitive appraisals of psychological empowerment; and motivation to act, both within role and extra role, in the service of the organization’s goals” (p.1).	In addition to Schaufeli et al.’s three components of engagement (vigor, absorption, and dedication), the authors proposed empowerment and citizenship motivation as new components of the engagement construct.	Empirical	A 39-item Self-Report Instrument	2342 employees from private educational organizations/USA

Author(s)	Definition	Major Contribution	Research Type	Measure	Participants
Fearon, McLaughlin, and Morris (2013)	Engagement is promoted by efficacy (self, collective, and organizational) and organizational interactions (individual, group, and organizational levels).	The social cognitive theory (SCT) explains the mechanism of how engagement can be developed from individual, group, and organizational perspectives.	Conceptual	-----	-----

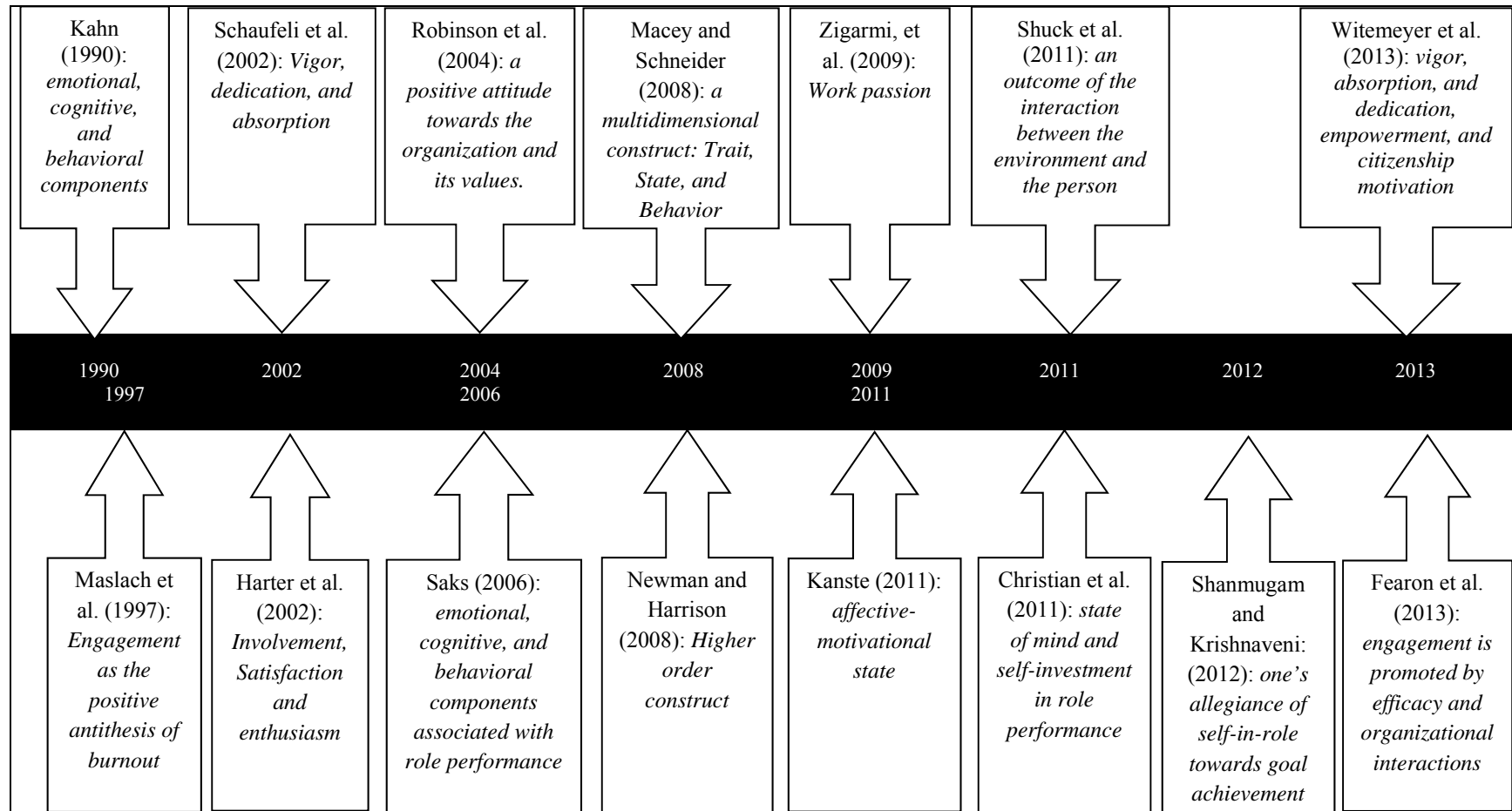


Figure 2.1 Historical timeline of the development of employee engagement concept

2.1 Related constructs

As discussed earlier, one major debate in the academic literature is how employee engagement relates to other well-established attitudinal constructs such as satisfaction, involvement, organizational commitment, organizational citizenship, and burnout (Briner, 2014; Lawler, 2013; Maslach, 2011; Newman and Harrison, 2008; Pugh and Dietz 2008).

Little and Little (2006) noted that defining employee engagement in relation to other well-known constructs is misleading since the association of engagement and those concepts has not been clearly explained. For example, Gubman (2004) differentiated between employee engagement and satisfaction stating that engagement is beyond satisfaction in the sense of the emotional connections engaged individuals show towards their jobs and the organization. Saks (2006) conceptualized engagement as the intellectual commitment to the organization while Harter et al. (2002) interpreted engagement as people's satisfaction, involvement, and enthusiasm for jobs. Further, several researchers used their own definitions to show the uniqueness of employee engagement from other traditional constructs. Drawing on Kahn's definition of engagement, Rich et al. (2010) stated that engagement provides a more comprehensive explanation about individuals' representation of themselves in role performance than other attitudinal constructs such as job involvement and job satisfaction. Therefore, reviewing how engagement researchers have compared and contrasted employee engagement to well-established attitudinal constructs is seen as important to the meaning of the engagement construct.

2.1.1 Organizational Commitment

Organizational commitment received wide attention during the 1990's. Mowday et al. (1979) stated that commitment should be defined as an attitudinal construct that results in behavioural outcomes; commitment results in behaviours that are beyond normative expectations. Mowday et al.'s (1979) focus on commitment related behaviours parallels the definitions of engagement that denote the "extra mile behaviour" (Macey and Schneider, 2008; Saks, 2006; Zigarmi et al. 2009).

Allen and Meyer (1990) argued that committed employees are less likely to leave the organization since they have created a psychological connection between themselves and the organization. This argument resonates with the findings reporting that engagement leads to employees retention (Alarcon and Edwards, 2011; Harter et al., 2002; Ram and Prabhakar, 2011; Shuck and Wollard, 2010).

Allen and Mayer (1990), from a multidimensional perspective, defined organizational commitment as a psychological state consisted of three components (affective, continuance, and normative commitment). Affective commitment is defined as the positive emotional attachment an individual has towards the organization. Being committed, employees identify themselves with the organizational goals and show a strong desire to remain in the organization because they "want to". Continuance commitment is defined as the individuals' personal needs to stay because they "have to", as it would be costly to leave the organization after ones have too many investments. Normative commitment refers to individuals' belief that they "ought to" stay with the organization because of personal allegiance or loyalty (Allen and Meyer, 1990). Of the three, affective commitment was considered, partially, similar to engagement since the first refers to individuals' identification, involvement, and

emotional attachment to the organization (Macey and Schneider, 2008; Vigoda-Gadot, Eldor, and Schohat, 2012). Maslach, Schaufeli, and Leiter (2001) considered involvement, energy, and efficacy as the main characteristics of engaged people while Kahn (1990) stated that employees engaged in their roles emotionally, psychologically, and cognitively. Furthermore, Macey and Schneider (2008) considered commitment as a key ingredient of state engagement beside other attitudinal constructs such as involvement, satisfaction, and empowerment. Similarly, Vance (2006) noted that commitment is one major component of employee engagement.

Among the authors in favour of considering employee engagement as a unique construct, Saks (2006) noted that engagement is distinct from organizational commitment in that engagement refers to the degree to which individuals focus on performing their roles while commitment refers to an individual's attachment and attitude to the organization. Maslach et al. (2001) argued that commitment refers to individuals' allegiance to the organization while engaged employees concentrate on the work itself.

Christian et al. (2011) conducted a meta-analysis to investigate the distinctiveness of engagement amongst other well-established attitudinal constructs, hence provide an operational definition of engagement. Christian et al. (2011) argued that engagement correlates to other attitudinal constructs (job satisfaction, organizational commitment, and job involvement) but it is still distinct since it is aligned to task-specific motivation. Engagement differs from organizational commitment as the former refers to individuals' psychological connection with performing their role-tasks rather than their attitudes towards work conditions (Christian, et al., 2011). This reflects the inconsistency between the conceptualization of engagement and its measures; some of the existing measures of engagement (e.g. GWA; Harter et al., 2002) include items that assess individuals' attitudes

towards job characteristics, but not their experience of task performance. Further, Christian, et al. (2011) noted that the dimensions assessed by the existing measures (e.g. UWES; Schaufeli et al., 2002) shared some commonalities and moderately correlated with organizational commitment (.59), job satisfaction (.53), and job involvement (.52). Thus, they argued that engagement is a higher-order construct (similar to Newman and Harrison, 2008) that includes multiple dimensions (cognitive, emotional, and physical), but not limited to the individual's emotional attachment to the organization as in the sense of organizational commitment. However, naming the construct as "work engagement" limits the scope of engagement at the individual level (attachment to work-tasks) and neglects the organizational level where engaged employee tend to reach the extra mile of performance and proactively direct their behaviour towards overcoming business-related challenges and achieving organizational goals. Again, we here argued that the term "employee engagement" is more comprehensive as it includes the person, job, and the organization, but not just "work" or "job" engagement.

Along similar lines, Kanste (2011) conducted an empirical study to examine the distinction between employee engagement and organizational commitment, and their association to well-being. The results showed that employee engagement does not overlap with the dimensions of work commitment, even though the constructs correlated positively. Kanste (2011) found that engagement and commitment are distinctive constructs since the results displayed different correlations in relation to well-being; they complement each other and they describe different types of positive attitudes employees have towards their work and organization. Depending on that empirical evidence, employee engagement was defined as "an affective-motivational state that refers to an individual's cognitive ability to be energetic and resilient at work as well as persistent in difficult times" (Kanste, 2011, p.760). The

author's theoretical basis was built on the notion of personal accomplishment; individuals are more likely to engage and be enthusiastic when they tend to assess themselves positively and have an accretion of mental resources.

In an attempt to collect empirical evidence about the distinctiveness of employee engagement amongst two well-established attitudinal constructs (affective commitment and job involvement), Vigoda-Gadot et al. (2012) administered a cross-sectorial survey to a sample of 593 managers and employees from both the public and private sectors in Israel. The results reported that employee engagement has an added value compared to the traditional constructs of organizational commitment and job involvement. They argued that affective commitment is a facet of state engagement but not equivalent to it. Engaged employees approach their job and involve themselves cognitively, emotionally, and physically with a sense of energy, passion, and challenge. Highly engaged employees are conscious, proactive, autotelic, optimistic, and more vigilant in performing their jobs in a way that facilitates the psychological and social context of the organization. They are expected to offer discretionary effort and show incremental variance in performing their jobs above just committed people (similar to Macey and Schneider, 2008)

2.1.2 Job Involvement

As any new construct, job involvement suffered from the lack of clear definition in the early stages of the construct development (Macey and Schneider, 2008). Lodahl and Kejner (1965) defined involvement as the degree to which individuals' self-esteem is affected by their work performance. They argued that involved people are best described as those for whom work is an important part of their entire life and who are influenced personally by the work environment including the work itself, colleagues, and the organization. Lawler and Hall

(1970) took another approach in defining involvement by focusing on the influence of the job in defining individuals' identity. They defined involvement as "the psychological identification with one's work" (Lawler and Hall, 1970, p. 310). Kanungo (1982) took a motivational approach and defined involvement in relation to the cognitive and psychological identification one has with work.

Similar to commitment, employee engagement has been defined in relation to job involvement. For example, Harter et al. (2002) equated engagement to both involvement and satisfaction. Paullay, Alliger, and Stone-Romero (1994), defined involvement as the level to which individuals are engaged in and concerned with, and preoccupied with their jobs. May, Gilson, and Harter (2004) defined job involvement as individuals' cognitive judgment about the degree of which the jobs can satisfy their needs. Furthermore, they considered engagement as an antecedent of job involvement as engaged employees are more likely to identify themselves with their jobs.

Brown (1996), in his meta-analysis, concluded that involved individuals find their job challenging and motivating, show commitment towards their jobs and the organization, and engage closely in professional relationships. Salanova, Agut, and Peiro (2005) argued that job involvement is a facet of employee engagement but not equivalent to it depending on the scope of both constructs. They argued that employee engagement is wider in scope where engaged employees focus on work and organization, while involved employees focus only on work (similar to Macey and Schneider, 2008; Schohat and Vigoda-Gadot, 2010). Maslach et al. (2001) stated that job involvement is one component or aspect of employee engagement besides the energy and effectiveness components. Saks (2006) differentiated between employee engagement and job involvement by arguing that engaged people employ themselves in their jobs cognitively, emotionally, and behaviourally, but not only cognitively

like involved individuals. Christian et al.'s (2011) meta-analysis provides support for Sak's (2006) argument stating that job involvement is a facet of employee engagement since it is related to the cognitive part of the engagement construct. Furthermore, Christian et al. (2011) argued that job involvement refers to the degree where the individual's identity is defined by the job situation; job involvement refers to some aspects of the job where individuals' needs and expectations can be satisfied (May et al., 2004), while engagement is more comprehensive since it refers to all work tasks. Hallberg and Schaufeli (2006) found that employee engagement correlated negatively with health complaints (e.g. depressive symptoms and emotional exhaustion), while job involvement did not. They argued that those results provide a clear evidence that the constructs are related, since they refer to positive attachment to job and share some theoretical references, but different as engagement holds distinct connotations not associated with job involvement (similar to Vigoda-Gadot et al., 2012).

2.1.3 Job Satisfaction

Drawing on the attitudinal nature of job satisfaction, some researchers in the engagement literature have conceptualized employee engagement in relation to job satisfaction. Harter et al. (2002) introduced the engagement-satisfaction notion to highlight the direct linkage between the two constructs. In their definition, they related engagement to satisfaction, along with involvement and enthusiasm. Harter et al. (2002) used the Gallup Workplace Audit, which contains items that conceptually relate to satisfaction facets such as opportunity for development, resource availability, and clarity of expectations. Others (e.g. Burke, 2005) used direct assessments of satisfaction as indicators of engagement levels. They used items that measure individuals' satisfaction with the organization, group, management, and job characteristics. For some (e.g. Towers-Perrin, 2003), satisfaction was seen as an emotional

factor linked to the emotional component of engagement, as the latter is considered as a construct consisting of affective (emotional) and cognitive components. Towers-Perrin (2003) argued that the emotional component of engagement is tied to individuals' personal satisfaction and the sense of affirmation they get from their jobs, and from being part of the organization.

Other researchers (e.g. Christian et al., 2011; Macey and Schneider, 2008) suggest that there are fundamental differences between employee engagement and job satisfaction. In their meta-analysis, Christian et al. (2011) argued that satisfaction is similar to satiation (satisfied individuals have positive/negative emotions towards their jobs), while engagement connotes energy and activation. Further, Christian et al. (2011) considered satisfaction as an evaluative judgment of job characteristics or conditions and as a feature of attitude, whereas employee engagement refers to employees' experiences that result from performing tasks. Similarly, Macey and Schneider (2008) argued that employee engagement goes beyond the simple definition of satisfaction of just the positive or negative emotions individuals get about job characteristics or conditions. They argued that engagement, in contrast, refers to individuals' commitment, passion, and the willingness to invest themselves and expend their discretionary efforts in achieving the organizational success. They proposed that satisfaction is a facet of the employee engagement construct when it is defined as a positive affected state that promotes enthusiasm and feeling of energy. Rich et al. (2010), in examining the antecedents of employee engagement in relation to job performance and organizational citizenship, found different patterns of associations between the antecedents in the study (value congruence, perceived organizational support, and core self-evaluation) and the attitudinal constructs of job satisfaction, job involvement, and intrinsic motivation compared to engagement. Further, the authors found that employee engagement exceeds job

involvement, job satisfaction, and intrinsic motivation in mediating the relationship between the three antecedents and the two dimensions of job performance; engaged employees reported a wider array of behaviours that include performing daily tasks and those at the organizational level.

2.1.4 Organizational Citizenship

Several researchers (e.g. Macey and Schneider, 2008; Newman and Harrison, 2008) argue that organizational citizenship behaviour falls under the category of “reaching the extra mile” and meets most of the definitions of engagement. Organizational citizenship behaviour is defined as employees’ discretionary behaviours that are beyond their job descriptions and not formally recognized by reward systems; it is an individual’s personal choice to contribute to organizational effectiveness (Organ, 1990; Elanain, 2008). In other words, the discretionary behaviours displayed by individual employees may not result in direct reward, but support the interests of teams or the organization.

Macey and Schneider (2008), in their classification of behavioural engagement, proposed that although organizational citizenship behaviour is included in engagement behaviours, the latter include individuals’ demonstration of initiative, innovative behaviour, role expansion, and adaptability to serve the organizational purposes. However, Griffin, Parker, and Neal (2008) argued that all behaviours are multi-determined and should not be linked to a specific motivational state. Similarly, Saks (2006) noted that engaged employees do not focus on voluntary and extra-mile behaviour but rather on formal task performance. He pointed to Kahn’s (1990) early conceptualization of engagement; that it refers to the extent to which individuals are psychologically present in performing their roles. Saks (2006) stated that engaged employees do what they are supposed to do rather than being innovative and doing

things differently. In addition, Saks (2006) considered the adaptive discretionary behaviour to be an outcome of engagement, but not engagement itself as engaged employees might initiate change to support the organizational effectiveness. Similarly, Newman and Harrison (2008) disagreed with Macey and Schneider's (2008) definition of behavioural engagement in that it refers to "adaptive behaviour intended to serve an organizational purpose, whether to defend and protect the status quo in response to actual or anticipated threats or to change and/or promote change in response to actual or anticipated events" (Macey and Schneider, 2008, p. 6). Newman and Harrison (2008) considered behavioural engagement as a higher order construct that underlies the co-variation among withdrawal, organizational citizenship, and job performance. They argued that Macey and Schneider (2008) neglected the focal work role behaviour of citizenship, attendance, and doing what is expected to be done well. Newman and Harrison (2008) stated the engagement is achieved only when people invest time and energy in their task role. Further, Frese (2008) suggested that individuals sometimes show high levels of state and behavioural engagement because they are negatively affected by negative feelings resulting from negative work conditions and dissatisfaction. In response to these negative feelings, people seek to change and that compels engagement behaviours.

Of those who consider employee engagement as more than just organizational citizenship behaviour, Robinson et al. (2004) argued that engagement is a two-way process between employees and their employer that is not involved in organizational citizenship behaviour. This is consistent with Kahn's (1990) psychological condition of meaningfulness as employees are personally engaged when they expect a good return of investing their entire selves in task performance. Schohat and Vigoda-Gadot (2010) argued that employee engagement is like organizational citizenship as employees offer voluntary behaviour in response to the organizational conditions (e.g. infrastructure, leadership, and resources), but

it has an added value as they involve in formal and informal activities that need commitment, creativity, care, respect, and aspects of belonging (similar to Macey and Schneider, 2008).

2.2 Towards a Working Definition of Employee Engagement

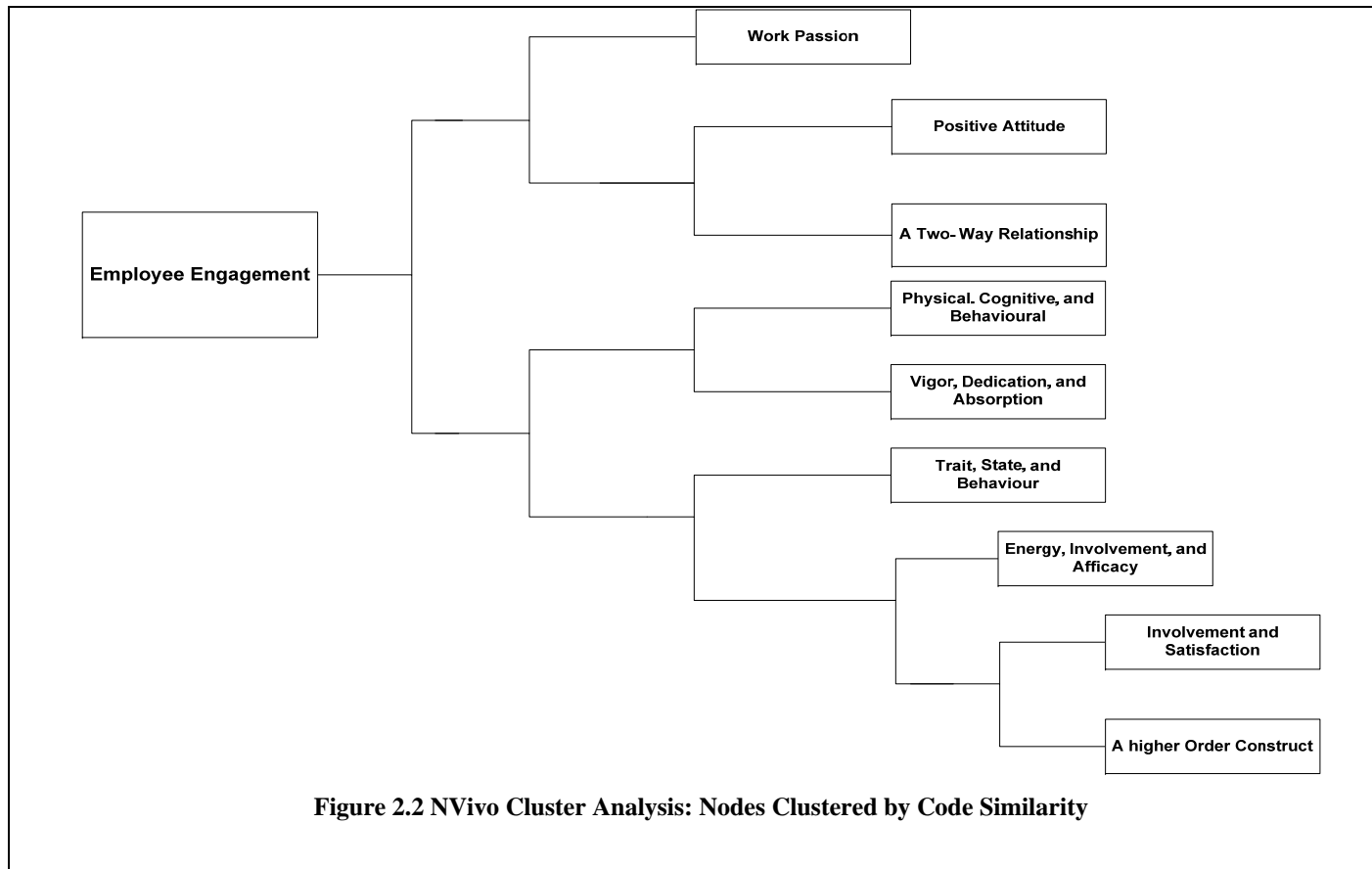
In the above sections, contradictions, ambiguity, and knowledge gaps can be found in the engagement literature. The engagement construct has been plagued by inconsistencies concerning the definition of employee engagement, whether it is a unique construct or a repackaging of older constructs such as organizational commitment, job satisfaction, and job involvement, whether engagement is a psychological state or a trait, and what the opposite or antithesis of engagement might be (Chritian et al., 2011). Further, the dimensionality of the construct has been brought into question and various themes were claimed to comprise the engagement construct (Saks and Gruman, 2014). Thus, this ambiguity revolving around employee engagement has led to proposing different antecedents and consequences, varying nomological networks, and different measurement tools designed according to each author's definition and theory. Thus, defining what employee engagement means is an initial step prior to designing its measurement tool, and defining its theory and nomological network.

Thus, various definitions of employee engagement have been identified and analysed. The purpose was to identify the shared theoretical themes, patterns, and commonalities within these definitions. To that end, a systematic procedure was followed; NVivo (a qualitative data analysis software) was used to identify several commonalities and construct dimensions. Firstly, definitions of engagement were categorized according to their broad themes (nodes). Secondly, the dimensions of each definition were coded and categorized under their respected themes. For instance, the dimensions of "affective motivational state", "emotionally positive", and "positive and fulfilling state of mind" were coded under the theme "positive

attitude”. Then, Nvivo cluster analysis was used to cluster themes (nodes) by code similarity. This resulted in a broad map that shows the theoretical components and commonalities between these themes (see Figure 2.2). Further, this operational identification of construct components enhances the accuracy of selecting the scale items that tap all components of the engagement construct.

Specifically, it was noted that both practitioners and academics frequently used terms such as cognition, belief-state, and intellectual commitment when describing the cognitive component of employee engagement. The construct was seen as individuals’ cognitive perception and judgment of need satisfaction derived from task performance and the organization (Harter et al., 2002; Kahn, 1990; Kanste, 2011; Macey and Schneider, 2008; Saks, 2006; Zigarmi et al. 2009). Further, researchers tended to use terms such as satisfaction, enthusiasm, affect, absorption, emotion, and positive state in describing the affective nature of employee engagement (Harter et al., 2002; Macey and Schneider, 2008; Robinson et al., 2004; Saks, 2006; Schaufeli et al., 2002). For example, the Gallup organization defined engagement as “individual’s involvement and satisfaction with as well as enthusiasm for work” (Harter et al., 2002, p. 269).

The emotional aspect was a key concept denoted in each definition of engagement. For instance, positive affect is seen essential for individuals to experience engagement (Soane, Truss, Alfes, Shantz, Rees, and Gatenby, 2012). Drawing on the broaden-and-built theory



of positive emotions (Fredrickson, 1998), positive affect can widen the scope of the quality and frequency of relationships between actions and thoughts.

Thus, when individuals feel positive about their work, their interest in socializing and interacting with others will be enhanced; hence, they share more information, exchange knowledge, and cooperate to achieve common goals (Pelled and Xin, 1999). Further, several conceptualizations of employee engagement connote the sense of positive emotions and described engaged employee as those who display enthusiasm, pride, passion, and emotional positivity at work (Macey and Schneider, 2008; Mäkikangas, Feldt, Kinnunen, and Mauno, 2013; Weisald, Reichard, and Serrano, 2011). Thus, engaged employees with positive emotions towards their work tend to, actively, interact with the surrounding environment, including their colleagues, leaders, and external business parties (Staw, 2004). This will facilitate and enhance their abilities to be active in serving of goal-accomplishment and exerting influence and power (VandenBos, 2007).

Moreover, terms such as discretionary effort (Macey and Schneider, 2008; Zigarmi et al., 2009), organizational citizenship behaviour (Newman and Harrison, 2008), proactive behaviour (Macey and Schneider, 2008), pro-social behaviour (Saks, 2006) and profitability (Harter et al., 2002) have been associated with the behavioural outcomes of engagement. Furthermore, Schaufeli (2014) called for a broader conceptualization of the construct that includes the behaviour component and describes how engaged employees contribute to the achievement of the organizational goals.

Another observation is that there has been an absence of agreement among engagement practitioners and scholars on a model explaining the formation of an individual's sense of engagement. Without an agreement on antecedent and/or consequences of engagement, the

definitions and the instrumentation have varied widely (see Tables 2.1 and 4.1). It is argued that Macey and Schneider's classification of trait, state, and behavioural engagement is preferable and simply refers to engagement in the sense that engagement has both trait like and state like components. However, Macey and Schneider's separation of the engagement construct into distinct facets blurs the issue and serves the ambiguity that has gone along with the meaning of the construct (Dalal et al., 2008; Newman and Harison's, 2008).

Further, the theme "goal-identification" (individuals are aware of how their role performance is linked to the achievement of the organizational objectives, Allen and Meyer, 1990) seems a sound component of the engagement construct. For instance, Shanmugam and Krishnaveni (2012) defined employee engagement as individuals' dedication of role performance towards the achievement of organizational goals. Similarly, Witemeyer et al. (2013) described engaged employees as those who employ their vigor, absorption, dedication, and motivation in serving the organization's goal accomplishment. Further, Schaufeli (2014) stated that the behavioural aspect of engagement, in line with organizational objectives, should be included in any operational definition of the engagement construct. Therefore, individuals' identification with organizational goals seems an essential component that should be incorporated in any working definition of engagement.

Drawing on the Nvivo analysis, the theoretical dimensions shared by various definitions of engagement have been identified and should be incorporated in any working definition of the construct. Thus, the researcher proposes the following working definition of employee engagement for the purposes of this study: *"a multidimensional construct that refers to passionate, inspired, energetic, enthusiastic, persistent, focused, and emotionally positive individuals who harness their personal attributes, along with their cognitive and affective*

evaluations of job and organizational situations, to direct their task performance toward achieving organizational objectives”.

Such a definition, as others have observed, would enable the emergence of a consensus as to how the engagement construct should be measured, including common items and scales (Albrecht, 2010; Briner, 2014; Macey & Schneider, 2008; Saks & Gruman, 2014).

Chapter 3. Measuring Employee Engagement

3.1 Introduction

Given the lack of consensus revolving around the meaning of employee engagement, measuring the construct is also highly fragmented. This poses difficulty and confusion for researchers seeking to develop theory around the construct in that measurement in individual studies reflects each author's conceptualization of engagement. As others have observed, measuring any construct would be more accurate and useful if it provides common items linked to a clear and agreed definition (Albrecht, 2010; Briner, 2014; Macey and Schneider, 2008; Newman et al., 2011; Truss et al., 2014). This chapter discusses, in depth, various measures found in the engagement literature and highlights the need for designing a new measurement tool that includes items assessing all the components of the new working definition proposed earlier in Chapter Two.

3.2 Engagement Measures

Since practitioners first introduced employee engagement, consulting firms have developed their own, often proprietary, instruments purporting to measure employee engagement. Again, these reflect how consultants have defined the term. Perhaps one of the most widely recognized measures is that developed by The Gallup organization, called the Gallup Workplace Audit (GWA). The instrument's items were developed from studies of work motivation, satisfaction, groups' effectiveness, and supervisory practices (Gallup, 2013; Harter et al., 2002). They reflect the practitioners tendency to define engagement as an aggregate of commitment, involvement and satisfaction (see Chapter One). The GWA defines engagement as linked to satisfaction and involvement, and was designed to measure two categories of survey items: those that identify issues within the manager or supervisor's

control and those that measure employees' attitudinal outcomes. Employees are asked to rate their agreement with twelve statements (called: Q 12) addressing physical resources, clear expectations, opportunity to use talent, caring colleagues, feedback and recognition, meaningful tasks, opportunity to know new skills, commitment to quality, request for input, growth and development, friendships, and progress discussions.

Although widely used by professionals and consultancy firms, researchers (e.g. Macey and Schneider, 2008; Schaufeli and Bakker, 2010) have criticized the GWA stating that it is a contemporary satisfaction measure describing the environmental conditions that are assumed to signify engagement, rather than measuring engagement itself. Further, Schaufeli and Bakker (2010) consider the GWA as an instrument assessing the antecedents of overall job satisfaction, but not individuals' levels of engagement. Example items are "Do you have the materials and equipment you need to do your work right?", "Do you have a best friend at work?", and "In the last year, have you had opportunities at work to learn and grow?" In addition, a very high correlation was found between the item of overall job satisfaction "How satisfied are you with (name of company) as a place of work?" and the Q12. After controlling for measurement error, the observed correlation was reported as 0.91 (Harter et al., 2002); statistically, this suggests collinearity. While conceding that satisfaction may tap a facet of the engagement construct, engagement also connotes notions of passion, commitment, energy, and activation (Albrecht, 2010; Macey and Schneider, 2008). Such debates highlight unresolved issues over the distinctiveness of engagement from other work attitudes and states (Macey and Schneider, 2008; Rich et al., 2010).

Towers Perrin, another global professional firm, developed its own survey of engagement claiming that it measures benchmarks of engagement and identifies its antecedents (Towers Perrin, 2003). The survey was developed from a study undertaken among 40,000 employees

working in northern America. It consists of nine items that mostly assess individuals' satisfaction of their overall work-experience in the organization (e.g. "Would say my company is a good place to work"), motivation (e.g. "Am personally motivated to help my company succeed"), or organizational citizenship (e.g. "Really care about the future of my company").

Price Waterhouse Coopers (PWC) introduced a 6-item survey reflecting their definition of employee engagement as the desire employees have towards acting and applying discretionary effort to achieve business outcomes. The survey was developed to assess six characteristics (advocacy, commitment, discretionary effort, pride, achievement, and alignment) seen to describe engaged employees (Employee engagement and workforce surveys, retrieved from: www.pwc.com). Example items are "I would recommend the company to friends and family as a great place to work", "I intend to stay with company for another 12 months", and "I understand how my job contributes to the success of the company". It can be noted that the scale includes items that clearly assess some components of organizational commitment and job satisfaction. Thus, measuring engagement in relation to other well-established constructs adds to the debate revolving around the distinctiveness of employee engagement. Further, information about the reliability and validity of the survey is not publically available.

Development Dimensions International (DDI) introduced a 20-item engagement survey (E3 DDI; Wellins, Bernthal, and Phelps, 2005). The scale consists of 20 items assessing individuals' perceptions of alignment effort with strategy, empowerment, teamwork and collaboration, plans development, support and recognition, satisfaction and loyalty. Similar to the other engagement surveys developed by practitioners, the items of the DDI engagement survey reflect the satisfaction-engagement approach (similar to the Gallup Workplace Audit).

Some items (e.g. “I am satisfied with my job”) clearly assess overall job satisfaction, while the rest evaluate sub-dimensions of job satisfaction. For instance, the items “In my work group, my ideas and opinions are appreciated”, “People in my work group cooperate with each other to get the job done” and “My job provides me with chances to grow and develop” measure individuals satisfaction of appreciation and recognition, relationships with co-workers and team members, and opportunity for development. Again, measuring engagement in terms of satisfaction adds to the ambiguity revolving around the distinctiveness of employee engagement from the other well-established attitudinal constructs (Albrecht, 2010; Saks and Gruman, 2014).

Most of the surveys, developed by consultancy firms, have focused on the organizational conditions assumed to build engagement rather than measuring engagement within the individual. Further, they were criticized by defining and measuring the engagement construct without providing solid theoretical underpinnings that explain how and why certain people are more engaged than their colleagues at the same workplace (Macey and Schneider, 2008). Further, the psychometric information and statistical properties of those measures are not generally open to public scrutiny.

In the peer-reviewed academic literature, one of the earliest measures of engagement is Maslach Burnout Inventory- General Survey (MBI-GS), developed by Maslach and Leiter (1997). The scale was originally developed to measure burnout and consisted of 22 items assessing three subscales labelled exhaustion, cynicism, and professional efficacy. However, engagement was defined as the positive antitheses of burnout (Maslach and Leiter, 1997), hence was measured within broad burnout settings. Low ratings on the cynicism and exhaustion suggest engagement; however high ratings correspond with burnout. Conversely,

high ratings on professional efficacy are assumed to manifest engagement and low ratings correspond to burnout.

In contrast to Maslach and Leiter (1997), several researchers have argued against measuring engagement as the opposite pole of burnout; absorption should not be considered as the direct opposite of reduced efficacy and individuals who do not feel exhausted may not experience energy (Bakker, Albrecht, and Leiter, 2011; Russell and Carroll, 1999; Schaufeli et al., 2002). Further, Schaufeli et al. (2002) conducted a study to, empirically, examine if engagement is distinct and negatively related to burnout. The relationship between burnout (measured by the MBI-GS) and engagement (measured by the UWES; three-factor scale of vigor, dedication, and absorption) was assessed on a sample of employees and university students. Although the results showed that the two constructs shared one quarter of their variance and were moderately and negatively related, the authors acknowledged that engagement refers to a persistent affective-cognitive state in contrast to burnout where people feel emotionally drained in certain moments. Further, consultancy firms considered that active disengagement is the opposite of engagement; actively disengaged employees are characterized by displaying low levels of energy, activation, and enthusiasm while performing their job-tasks (Gallup, 2013). This aligns with Kahn's (1990) earlier conceptualization of "personal disengagement"; disengaged individuals actively withdraw themselves from performing their roles or exerting extra effort to perform complex and challenging tasks (Kahn, 1990).

One of the most widely used instruments that assess the levels of employee engagement is the Utrecht Work Engagement Scale (UWES), designed and validated by researchers from Holland and Spain (Schaufeli et al., 2002). The instrument was constructed based on Maslach Burnout Inventory as engagement is theoretically conceptualized as the positive antithesis of burnout, but with considering absorption as a distinct element of engagement and it is not the

direct opposite of burnout-reduced efficacy. The UWES consists of 17 items that measure three dimensions of engagement: vigor, dedication, and absorption. Vigor was measured by six items (e.g. “At my work, I feel that I am bursting with energy”), dedication was assessed by five items (e.g. “I find the work that I do full of meaning and purpose”), and finally, absorptions was measured by six items (e.g. “time flies when I am working”). Derived from the original UWES, Schaufeli, et al. (2006) developed a shorter version, called the UWES-9, with nine items assessing vigor, dedication, and absorption by 3-items each.

Mills, Culbertson, and Fullgar (2012) analysed the UWES by examining the factor structure, reliability, construct validation of both versions. They found that the UWES-9 version holds promise as it appeared valid in use, yielded reliable scores, and was found to capture the three factor dimensionality (vigor, dedication, and absorption) of engagement better than the original 17-item version. In order to examine the engagement construct validity (convergent and divergent validity), the two versions of UWES were correlated with pertinent constructs like involvement, affective commitment, burnout, job satisfaction, intrinsic motivation, self-efficacy, and positive and negative affect. The results revealed that there were significant relationships between the three components of engagement and other well-known constructs. The only exception was the absence of a negative correlation between negative affect and engagement. Such a finding seems interesting since it highlights the negative side of too much engagement where employees are too absorbed in performing tasks and are not consciously aware of any negative affectivity they might experience. This aligns with Macey and Schneider’s (2008) notion stating that “people cannot spend their energy at the highest level all of the time- there is a need for recovery to ensure continued employee well-being” (p. 80).

Although the UWES is one of the most frequently used scales that assesses employees' levels of engagement, it is worth noting that two domains of the UWES (vigor and dedication) stem from the burnout theory, as the opposite antitheses of exhaustion and cynicism. Based on thirty-seven studies, Cole, Walter, Bedeian, and O'Boyle (2012) conducted a meta-analysis to examine the distinctiveness of the UWES from MBI scale of burnout. They found high correlations between the dimensions of the two measures. Further, they found that UWES and MBI show quite similar (but opposite) patterns of associations with the proposed antecedents (job demands and job resources) and outcomes (health complains, organizational commitment, and job satisfaction; job resources and job demands explained similar amount of variance in engagement (19%) and burnout (15%). The authors concluded that the UWES redundancy with the MBI scale is a major concern in the engagement literature and this contributes to the misalignment exists between the theory and measurement of the engagement construct.

Among the authors that stand against considering employee engagement as a unique and distinct construct, Newman and Harrison (2008) conducted a comparison between the UWES items and those of previous well-established constructs. They observed that the items assessing vigor, dedication, and absorption are redundant with previous measures of satisfaction, involvement, and organizational commitment. For example, the item "I find the work I do full of meaning and purpose (Dedication 1)" is typically similar to "This organization has a great deal of personal meaning for me (Organizational Commitment)" by Meyer et al. (1993). The item "Time flies when I am working (Absorption 1) is derived from "For me, mornings at work really fly by (Involvement)" by Lodahl, and Kejner, (1965). The item "I am enthusiastic about my job (Dedication 2)" overlaps with "Most days I am enthusiastic about my work (Job Satisfaction)" by Brayfield and Roth, (1952). Similarly,

Rich et al. (2010) stated that the UWES contains items that overlap with some of the proposed antecedent conditions such as meaningfulness, skill variety and autonomy (e.g. “I find the work that I do full of meaning and purpose”).

Collecting empirical evidence about the factorial structure of the UWES, Sonnentag (2003) conducted a principal component analysis on the UWES scale and the results did not support the three-factor structure of the scale. Instead, UWES as a one-factor scale of engagement was found to be reliable with coefficient alpha of 0.91. Further, Christian and Slaughter (2007), in a meta-analysis testing the inter-correlations between the scale variables, found that Schaufeli et al.’s (2002) three factors of engagement (vigor, dedication, and absorption) were highly inter-correlated. They supported the calls for measuring engagement with a one-factor measure instead of three separate scales.

Further, debate remains about the validity of the UWES and its factorial structure has been put into question. Recently, Viljevac, Cooper-Thomas, and Saks (2012) examined the discriminant validity of the UWES and May et al.’s (2004) scale of engagement. The surveys were administered to 139 employees working for call centres of finance organizations in Auckland/New Zealand. The results revealed that both scales failed to report an adequate discriminant validity with job satisfaction. Further, the three-factor structure of each scale was weakly supported (similar to Mills et al., 2012). Wefald, Mills, Smith, and Downey (2012) conducted an online survey among 382 managers and employees working for a financial organization to examine the factorial structure of the UWES. The results failed to confirm either a three- or a single factor structure for the UWES.

Another measure that distinguishes between the three dimensions (cognitive, emotional, and physical) of engagement was developed by May et al. (2004). The measure consists of 13

items, which reflect Kahn's three facets of psychological engagement (cognitive, emotional, and physical). The items are similar to those of the UWES. Physical engagement was measured by statements like "I exert a lot of energy performing my job", which seems to overlap with vigor. The item "I really put my heart into my job" corresponds to dedication illustrated in emotional engagement. The cognitive engagement was measured by statements like "performing my job is so absorbing that I forget everything else", which is similar to absorption. To the best of the researcher's knowledge, the psychometric properties of May et al.'s (2004) scale have not been reported by other studies conducted in cross-cultural settings.

Similarly, Saks (2006) developed a measure that is related to a conceptualisation of engagement as being the psychological presence in job and organizational roles, which is derived from Kahn's psychological engagement. The measure consists of a five-item scale to assess job engagement and a six-item scale to measure organizational engagement. The five items assessing job engagement focus on individuals' cognitive presence while they perform their job roles. Some items seem to overlap with previous measures. For example, the item "sometimes I am so into my job that I lose track of time" overlaps with the absorption item "Time flies when I am working" of Schaufeli et al.'s (2002) and the cognitive item "performing my job is so absorbing that I forget everything else" of May et al.'s (2004). Respectively, the six items assessing Saks' organizational engagement focus on how the organization makes employees dedicated and energized. For example, the item "being a member of this organization is exhilarating for me" taps into how the feeling of being a member on an individual's organization enhances one's energy and excitement. Such items do measure the conditions or the organizational environment rather than engagement itself as a state. Further, the items "I am highly engaged in this organization" and "I am highly

engaged in this job” are vague as they assess engagement according to each individual’s perspective.

Rich et al. (2010) modified various items from several measures to develop a measure of 18 items that fit with the three dimensions of Kahn’s psychological engagement. Physical engagement was measured by using Brown and Leigh’s (1996) scale of work intensity. This subscale consists of six items like “I exert a lot of energy on my job” and “I strive as hard as I can to complete my job”. Russell and Barrett’s (1999) measure of core affect was used to measure the emotional subscale. This subscale consists of six items, such as “I am enthusiastic in my job” and “I feel energetic at my job”, assessing the extent to which ones perceive their job as energising and pleasant. The cognitive subscale was measured by adapting Rothbard’s (2001) measure to assess the extent to which individuals feel focussed and engrossed while performing their roles. Examples of these items are “At work, I am absorbed by my job” and “At work, I pay a lot of attention to my job”. Similar to May et al.’s (2004) scale, information about the psychometric properties of the scale are not available in the engagement literature.

Building on Kahn’s (1990) three psychological conditions, Soane et al. (2012) developed a three-dimensional measure of engagement called the Intellectual Social Affective Engagement Scale (ISA engagement Scale). The scale consists of nine items assessing affective engagement (e.g. “I am enthusiastic in my work”), intellectual engagement (e.g. “I focus hard on my work”), and social engagement (e.g. “I share the same work attitudes as my colleagues”). The reliability of the scale was found strong with coefficient alpha = .91. It can be noticed that two dimensions of the scale (affective engagement and intellectual engagement) consisted of items similar to those used in the engagement literature. For example, the item “I feel energetic in my work” is typically similar to Schaufeli et al.’s (2002)

item of vigor “At my work, I feel bursting with energy” and the item “I am enthusiastic in my work” is similar to the item “am enthusiastic about my job” of Schaufeli’s (2002) dedication. Further, the intellectual dimension was defined, in relation to Schaufeli’s (2002) absorption, as ‘the extent to which one is intellectually absorbed in work’ (p. 532). Interestingly, Soane et al. (2012) introduced social engagement as a new facet of employee engagement and it is defined as “the extent to which one is socially connected with the working environment and shares common values with colleagues” (p. 532). However, the social dimension needs to be based on a strong theoretical underpinning that explains why sharing the same attitudes, values, and similar goals with colleagues can be linked to engagement. Further, it should explain how this would encourage individuals to exert extra effort, reach the extra mile of performance, and persist during challenges and tough times. Example items of the social facet are: “I share the same work values as my colleagues”, “I share the same work goals as my colleagues”, and “I share the same work attitudes as my colleagues”.

Respectively, Stumpf, Tymon, and van Dam (2013) developed a 14-item engagement scale that assesses two dimensions of engagement: behavioural engagement and felt engagement. The coefficient alphas for the proposed subscales were .92 for behavioural engagement and .89 for felt engagement. The study aimed at examining the relationships between the two dimensions of engagement and certain work group outcomes (performance, innovation, career success, satisfaction with the organization, and intentions to stay). It is worth noting that the scale items are derived from well-established attitudinal constructs. For example, the item “The work that they do is very satisfying to them” is purely assessing job satisfaction. Thus, it is contradicting to treat satisfaction as an outcome of engagement, while at the same time, the engagement scale contains some items measuring satisfaction. Further, the authors

claimed that the scale items were developed to reflect Macey and Schneider's (2008) propositions of engagement. However, the items content failed to represent the state and trait facets of Macey and Schneider's (2008) propositions. For instance, the item "Their work performance goes beyond expectations" is more about evaluating the outcome of individuals' performance (performance appraisal) than assessing engagement as a phenomenon that individuals experience while performing their job tasks. Further, this item reflects the redundancy between the engagement scale and one of the proposed outcomes of engagement (performance).

Across the various academic measures of employee engagement included in this research (see Appendix A), it would seem that each measure was developed according to how independent researchers theoretically conceptualized and defined the term. Yet each measures also shares similar items, with varying degrees of overlap, indicating the assessment of similar and different components of the construct on. Such variance creates obvious difficulties in assessing not only the value and validity of the engagement construct, it leaves us uncertain as to whether differences in the findings of engagement studies concerning antecedents and outcomes are theoretically significant or a function of how engagement has been measured, and perhaps even due to measurement error. Furthermore, an absence of consensus concerning the meaning of the construct renders the reliability and validity (content and discriminant validity) of its measurement questionable and adds practitioner confusion concerning the operationalization of the construct (Albrecht, 2010; Macey & Schneider, 2008; Newman et al., 2011, Truss et al., 2014). This has led to calls for conceptualizing the construct first so the instrument will accurately assess employee engagement but not partial aspects of the construct or other related constructs (Albrecht, 2010; Briner, 2014; Macey and Schneider, 2008; Newman et al., 2011). In answering these

calls, this research seeks to develop a new measurement tool including items that tap each component of the definition proposed in Chapter Two.

Chapter 4. Antecedents of Employee Engagement

4.1 Introduction

Due to the varying definitions of employee engagement outlined in Chapter One, research has provided several models and identified different predictors of the construct (see Table 4.1). This inconsistency in identifying the key predictors of employee engagement has caused problems for engagement practitioners when designing their interventions (Albrecht, 2010; Saks and Gruman, 2014). Thus, examining the existing models and their theoretical underpinnings is essential to understand how employee engagement is formed and cultivated, hence, define the main factors responsible for fostering engagement in the workplace. Specifically, the study hypotheses of the relationships between employee engagement and two potential antecedents (leadership styles and personality attributes) are developed in in this chapter.

4.2 Models of Engagement

As identified previously, the origin of engagement models and theories relates to two main areas of engagement research: job burnout model (Maslach and Leiter, 1997) and the psychological theory of engagement (Kahn, 1990). For example, Kahn (1990) found that the psychological conditions (psychological meaningfulness, safety, and availability) significantly predict employee engagement. Maslach and Leiter (2008) considered the six areas of work life (workload, control, reward, community, fairness, and values) as the major antecedents of engagement and burnout. Job demands, job resources, and job characteristics have also received wide attention and were found to be key factors influencing employees' decisions to engage (Bakker et al., 2014; Koyuncu et al., 2006; Mauno et al., 2007; Ram and Prabhakar, 2011; Schaufeli and Bakker, 2004). Recently, the focus of engagement research has been shifted to examining leadership styles, personality attributes and organizational

culture as potential antecedents of employee engagement (e.g. Arifin, Troena, Djumahir, and Rahayu, 2014; Handa and Gulati, 2014; Lee and Ok, 2015; Suharti and Suliyanto, 2012; Zhu, Avolio, and Walumbwa, 2009). Again, given the lack of a mutual agreement found between engagement practitioners and scholars about the meaning of employee engagement, the validity of those findings is still questionable (Albrecht, 2010). Thus, a review of the existing models of employee engagement is helpful to define the antecedents of engagement that are grounded on theoretical underpinnings (see Table 4.1).

Kahn (1990) defined engagement from a psychological presence point of view arguing that individuals fully express and manifest the true and authentic facets of themselves at work. Kahn (1990) identified three factors that reinforce individuals' presence of engagement. Firstly, engagement is more likely to occur when individuals experience the sense of meaning at work; individuals find a strong association between their work and some desirable, enduring, and important objectives and values. Such feelings enable them to dedicate their efforts towards achieving those objectives. Secondly, Kahn argued that individuals are more likely to demonstrate engagement when they perceive that such dedication of efforts will be psychologically safe and will not result in negative consequences. Thirdly, individuals need to access certain necessary resources (emotional, physical, and psychological) in order to maintain high levels of dedication.

Building on Kahn's (1990) psychological state of engagement, May et al. (2004) conducted a field study on an insurance company in America to explore the predicting influence of Kahn's (1990) three conditions (meaningfulness, availability, and safety) on employee engagement. The results revealed that the three psychological conditions were significantly associated with employee engagement.

Table 4.1

Antecedents, consequences, measures, and key finding

Author(s)	Antecedents	Consequences	Measure	Key Findings
Kahn (1990)	Psychological Conditions: Psychological Meaningfulness, Safety, and Availability.	Work Role Performance	Untitled tool (a 14-item scale), In-depth interviews, and observation.	Meaningfulness was significantly and strongly related to engagement. Psychological safety partially mediates the relationship between job enrichment and work role fit.
Harter, Schmidt, and Hayes (2002)		Business-Unit Outcomes (Customer Satisfaction, Productivity, Profit, Employee turnover, and Accidents.	Gallup Workplace Audit (GWA)	Strong relationships were found between satisfaction/engagement and the 5 business-unit outcomes.
May, Gilson, and Harter (2004)	Kahn's three psychological conditions (Meaningfulness, safety, and availability) mediates the relationships between the predictors (role fit, job enrichment, supportive supervision, rewarding coworker, adherence to coworker norms, resources availability, self-consciousness, and participation in outside activities) and employee engagement.	-----	The newly developed 13-item scale assessed engagement.	Kahn's (1990) three psychological conditions were positively related to engagement. Further, positive relationships were found between the three conditions and the variables (role fit, job enrichment, supportive supervision, rewarding coworker, resources availability). Adherence to coworker norms, self-consciousness, and participation in outside activities were negatively related to the three psychological conditions.

Author(s)	Antecedents	Consequences	Measure	Key Findings
Schaufeli and Bakker (2004)	Job Demands and Job Resources.	Health problems, and Turnover Intention	Engagement was measured by the Utrecht Work Engagement Scale (UWES) while Burnout was measured by Maslach Burnout Inventory-General Study (MBI_GS)	The results demonstrated that engagement and burnout are negatively related. Job resources exclusively predict engagement, whereas burnout is predicted by both job demands and the lack of job resources. Engagement mediates the relationship between turnover intention and job resources while burnout mediates the relationship between job demands and health problems.
Salanova, Agut, and Peiro (2005)	Organizational Resources (Training, Autonomy, and Technology)	Employee Performance and Customer Loyalty	Utrecht Work Engagement Scale (UWES)	The results showed that organizational resources are related to engagement. Service climate mediates the relationship between engagement and employee performance and customer service.
Saks (2006)	Job Characteristics, Perceived Organizational Support, Perceived Supervisor Support, Rewards and Recognition, Procedural Justice, and Distributive Justice.	Job Satisfaction, Organizational Commitment, Intention to Quit, and Organizational Citizenship Behavior.	Untitled tool: two six-item scales to measure job engagement and organizational engagement.	<p>The author argued that there is a meaningful difference between organization engagement and job engagement and they both mediate the relationship between the antecedents and consequences.</p> <p>Job engagement is predicted by perceived organizational support and job characteristics. Organization engagement is predicted by the perceived organizational support and procedural justice.</p>

Author(s)	Antecedents	Consequences	Measure	Key Findings
Richardsen, Burke, and Martinussen (2006)	Type A Personality, Job Demands, and Job Resources.	Work and Health Related Outcomes (Health Complaints, Organizational Commitment, and Self Efficacy).	Utrecht Work Engagement Scale (UWES-9)	The results demonstrated that type A personality and job resources were related to engagement. The impact of type A personality, job resources, and job demands on organizational commitment and self-efficacy was partially mediated by engagement.
Koyuncu, Burke, and Fiksenbaum (2006)	Work Experiences (Rewards and Recognition, Work Load, Community, Control, Fairness and Value Fit), and Individual Characteristics.	Intention to Quit, Job Satisfaction, and Psychological Well-being	Utrecht Work Engagement Scale (UWES)	Engagement was predicted by work experiences (control, rewards and recognition, and value-fit). Individual characteristics were not related to engagement. Job satisfaction, intention to quit, and psychological well-being were predicted by engagement.
Mauno, Kinnunen, and Ruokolainen (2007)	Job Demands (quantitative workload, work-to-family conflict, job insecurity) and Job Resources social (organization-based self-esteem, job control, and perceived management quality).	-----	Utrecht Work Engagement Scale (UWES)	The results showed that job resources affects engagement stronger than job demands. Job control and organization-based self-esteem were found to be the best in predicting the three dimensions of engagement (vigor, dedication, and absorption).
Xanthopoulou, Bakker, Demerouti, and Schaufeli (2007)	Personal Resources (Self-Efficacy, Organizational-Based Self-Esteem, and optimism)	-----	Utrecht Work Engagement Scale (UWES-9)	The relationship between job resources and engagement is mediated by self-efficacy, optimism, and organization-based self-esteem.
Maslach and Leiter (2008)	The six areas of work life: Work Load, Control, Reward,	Employees' perceptions, of organizational change.	Maslach Burnout Inventory-General	Burnout/engagement mediates the relationship between the six areas of work life and employees'

Author(s)	Antecedents	Consequences	Measure	Key Findings
	Community, Fairness, and Values.		Study (MBI_GS)	perceptions of organizational change.
Zhu, Avolio, and Walumbwa (2009)	Transformational Leadership	-----	Gallup Workplace Audit (GWA)	Employee engagement is positively affected by transformational leadership, especially when it is moderated by positive followers' characteristics.
Simpson (2009)	Job satisfaction (pay, professional status, interaction, task requirements, organizational policies, and autonomy), turnover cognitions (thinking of quitting, intent-to-search, intent-to quit), and Job search behavior.	-----	The 9-item Utrecht Work Engagement Scale (UWES-9)	Low rates of job satisfaction, higher levels of job search intention, and higher levels of turnover cognitions results in lower levels of engagement. The results emphasized the need to improve the environmental processes that are consistent with job satisfaction components: professional status and interaction between leaders and followers.
Rich, LePine, and Crawford (2010)	Value Congruence, Perceived Organizational Support, and Core Self-Evaluation.	Task Performance and Organizational Citizenship Behavior.	The authors modified various items from several measures that fit with the three dimensions of Kahn's definition of engagement. Physical engagement was measured by Brown and Leigh's (1996) measure of work intensity. Russell and	Engagement exceeds job involvement, job satisfaction, and intrinsic motivation in mediating the relationship between the three antecedents and the two dimensions of job performance.

Author(s)	Antecedents	Consequences	Measure	Key Findings
			Barrett's (1999) measure of core affect was used to measure emotional engagement. Cognitive engagement was measured by Rothbard's (2001) measure. Those items consisted the 18-item Job Engagement Scale (JES).	
Babcock-Roberson and Strickland (2010)	Charismatic Leadership	Organizational citizenship behavior	Schaufeli et al.'s (2002) 17-item UWES	Charismatic leadership significantly and positively predicts work engagement. Further, positive relationships were found between charismatic leadership and OCB and between engagement and OCB. The results also reported a strong mediation role of work engagement between charismatic leadership and OCB.
Alarcon and Edwards (2011)	-----	Job Satisfaction and Turnover Intentions	The 9-item Utrecht Work Engagement Scale (UWES-9)	The results revealed that absorption is an important component of engagement predicting job satisfaction and turnover intentions significantly. The author argued that absorption makes engagement unique and distinct from other well-known constructs in the organizational literature.

Author(s)	Antecedents	Consequences	Measure	Key Findings
Chughtai and Buckley (2011)	Trust in Supervisor and Trust Propensity	In-Role Job Performance and Innovative Work Behavior mediated by Learning Goal Orientation	The 9-item Utrecht Work Engagement Scale (UWES-9)	The results showed that the two perspectives of trust (relationship-based and the character-based) are positively and significantly related to engagement. The relationship between engagement and in-role job performance and innovative behavior was partially mediated by learning goal orientation. Investigating the mediating role of learning goal orientation is important to highlight the underlying mechanism by which engagement affects performance.
James, McKechnie, and Swanberg (2011)	Supervisor Support, Autonomy, Schedule Satisfaction, Career Development Opportunities, and Perceptions of Fairness.	-----	Untitled tool: 8-item scale developed for CitiSales by a vendor to measure the cognitive, emotional, and behavioral aspects of engagement.	Engagement is significantly and positively predicted by all those antecedents. Career development was not a predictor of engagement for retirement-eligible employees.
Rivera, Fitzpatrick, and Boyle (2011)	Autonomy, Manager Action, Team Work, Passion, Personal Growth, Recognition, Salary and Benefits, and Work Environment.	-----	Untitled tool: a 4-item scale.	Manager Action and passion were critical drivers that significantly affect employee engagement. Salary and benefits were found to be weak in driving employee engagement.
Slåtten and Mehmetoglu (2011)	Perceived Role Benefit, Job Autonomy, and Strategic Attention	Innovative behavior	A six-item scale selected from the 9-UWES	Employee engagement is significantly related to innovative behavior. Perceived role benefit, job autonomy, and strategic attention are key predictors of employee engagement.

Author(s)	Antecedents	Consequences	Measure	Key Findings
Ram and Prabhakar (2011)	Job Characteristics, Intrinsic and Extrinsic Rewards, Perceived Organizational Support, Perceived Supervisor Support, Perceptions of Procedural Justice, and Perceptions of Distributive Justice.	Job Satisfaction, Job Involvement, Organizational Citizenship Behavior, and Intention to quit.	Interview	The results confirmed the positive impact of these antecedents on employee engagement. Employee engagement correlates positively to the consequences.
Shuck, Rocco, Albornoz (2011)	Job Fit, Affective Commitment, and Psychological Climate.	Discretionary Effort and Intention to Turnover.	A combination of the meaningfulness, safety, and availability scales (May et al., 2004).	All the antecedents were significantly related to employee engagement. The results reported that individuals who experienced a positive psychological climate reported higher levels of discretionary effort. Engagement and affective commitment predicted lower levels of intention to turnover.
Salanova, Llorens, and Schaufeli (2011)	Positive affect (satisfaction, enthusiasm, and comfort) mediates the relationship between efficacy beliefs (perceived collective efficacy and self-efficacy) and engagement.	-----	The Spanish version of Schaufeli et al.'s (2002) 17-item UWES	The results revealed that efficacy beliefs, via positive affect, significantly influenced activity engagement. Amongst the dimensions of positive affect, enthusiasm was found to be the strongest predictor of activity engagement.
Suharti and Suliyanto (2012)	Organizational culture and leadership styles	Employee loyalty	Gallup Workplace Audit (GWA)	The results revealed that organizational culture and leadership behavior have direct effect on employee

Author(s)	Antecedents	Consequences	Measure	Key Findings
				engagement. Further, the mediating role employee engagement has between the antecedents (organizational culture and leadership behavior) and employee loyalty was supported.
Liao, Yang, Wang, Drown, and Shi (2012)	Individual personality (extraversion, conscientiousness, and neuroticism) and team member exchange (TMX)	-----	Schaufeli et al.'s (2002) 17-item UWES	Personality attributes moderate the TMX-engagement relationship. The TMX-engagement relationship was stronger with those who were lower in neuroticism and higher in extraversion. Interestingly, those who were higher in conscientiousness reported negative LMX-engagement relationship.
Bakker, Tims, and Derks (2012)	Job crafting (increased social job resources, increased structural job resources, and increased job demands) mediates the relationship between proactive personality and work engagement.	Employee in-role performance	Schaufeli et al.'s (2006) 9-item UWES	The results revealed that employees with proactive personality were able to craft their jobs (adjust their work environment), hence, effectively engage and perform well.
Soane, Truss, Alfes, Shantz, Rees, and Gatenby (2012)	-----	Task performance, turnover intentions, and organizational citizenship behavior.	The 9-item ISA engagement Scale.	The three dimensions of engagement (affective engagement, behavioral engagement, and intellectual engagement) have strong relationships with the examined outcomes (task performance, turnover intentions, and OCB).
Rothmann and Welsh (2013)	Work-role fit, co-worker relations, job enrichment, availability of resources, perceived organizational support, rewards and	-----	May et al.'s (2004) engagement scale.	The authors claimed that Kahn's three psychological conditions mediate the relationship between the proposed antecedents and employee engagement. Further, they hypothesized that each

Author(s)	Antecedents	Consequences	Measure	Key Findings
	recognition, supportive relationships with supervisors, and supportive relationships with co-workers.			of Kahn's (1990) psychological conditions has its own predictors. The results revealed that job enrichment, work-role fit, and availability of resources are linked to psychological meaningfulness, while psychological availability was associated with co-worker relations and availability of resources. Among all factors, job enrichment and work-role fit showed the strongest indirect impact on employee engagement.
Jenkins and Delbridge (2013)	Job features, organizational values, organizational support, employee voice, organizational integrity, and social relations.	-----	Interviews	<p>The external context shapes the management approaches to engagement. The soft approach (Voice-Tell) focuses on the human dimension that enhances employees' satisfaction, while the hard approach (Energy-Serve") refers to the focus on the resources and increased effort as the primary goals to achieve the competitive advantage.</p> <p>The results revealed that the managerial soft approach was more effective in enhancing employee engagement than the hard one and the organization's choice between these approaches is contingent on its business context and external factors.</p>
Wang and Hsieh (2013)	Authentic leadership (supervisors' consistency between words and actions, and supervisors' moral perceptions) and trust.	-----	Schaufeli et al.'s (2002) 17-item UWES	The two dimensions of authentic leadership positively predicted engagement. Further, trust was positively associated with engagement and partially moderated the relationship between engagement and authentic leadership.

Author(s)	Antecedents	Consequences	Measure	Key Findings
Stumpf, Tymon, and van Dam (2013)	-----	innovation, satisfaction with the organization performance, and intentions to stay, and career success	Untitled 14-item scale that assess two dimensions of engagement (behavioral and felt engagement)	The dimensions of the newly developed scale were significantly associated with the proposed outcomes. Further, the strongest association was found between behavioral engagement and performance.
Arifin, Troena, Djumahir, and Rahayu (2014)	organizational culture (rationality, formality, achievement orientation, communication professional orientation and teacher autonomy, and participation and collaboration) and transformational leadership.	Teacher performance	A 20-item scale consisting from Schaufeli et al.'s (2002) UWES and 3 items assessing an additional dimension (passion).	Organizational culture and transformational leadership have positive impact on employee engagement and teacher performance. Further, the association between engagement and performance was supported.
Strom, Sears, and Kelly (2014)	Transformational and transactional leadership styles moderate the relationship between organizational justice (distributive and procedural) and employee engagement.	-----	Schaufeli et al.'s (2002) 17-item UWES	The results revealed that the positive relationships between organizational justice and employee engagement is manifested when employees experience low levels of transactional leadership. However, the moderating role of transformational leadership in this relationship was not found.

Author(s)	Antecedents	Consequences	Measure	Key Findings
Anitha (2014)	Leadership, work environment (physical and emotional), team and co-worker relationships, work place well-being, compensation, training and development, and organizational policies.	Employee performance	Untitled tool	The proposed antecedents were found to be sound predictors of employee engagement, however, work environment and team and co-worker relationships were found to be the strongest determinants of employee engagement. Further, employee engagement significantly influenced employee performance.
Breevaart, Bakker, Hetland, Demerouti, Olsen, and Espevik (2014)	Daily transactional (contingent reward and management by exceptions/active) and transformational leadership styles.	-----	The 9-item UWES (Schaufeli, et al., 2006).	Leaders who display more transformations behaviors and provide contingent rewards are more effective than those who show MBE/active behaviors. In other words, contingent reward and transformation leadership facilitate autonomy and support in the work environment; hence, enhance individuals' willingness to engage.
Handa and Gulati (2014)	Personality traits (extraversion and conscientiousness).	-----	Schaufeli et al.'s (2002) 17-item UWES	A positive relationships were found between personality attributes (extraversion and conscientiousness) and employee engagement.
Mishra, Boynton, and Mishra (2014)	Internal communication	-----	Simi-structured interviews	Internal communication (including face-to-face communication) was found to be a key contributor to enhancing employee engagement. The interviewees believed that their participation in setting the organizational goals is essential to be engaged. Further, trust can be maintained when mutual dialogue with key audience (employees) is promoted.

Author(s)	Antecedents	Consequences	Measure	Key Findings
Shuck and Reio (2014)	psychological workplace climate	Depersonalization, personal accomplishment, psychological well-being, and emotional exhaustion	The 18-item Job Engagement Scale (JES; Rich et al., 2010).	Drawing on the regression results, work engagement moderated the relationship between psychological work environment and the four outcome variables; individuals who scored highly on employee engagement showed high levels of personal accomplishment and psychological well-being. On the other hand, those with lower scores of engagement exhibited higher levels of depersonalization and emotional exhaustion.
Hansen, Byrne, and Kiersch (2014)	Organizational identification mediates the relationship between interpersonal leadership (transformation leadership, informational justice, and interpersonal justice) and engagement.	Organizational commitment and job tension	Schaufeli et al.'s (2002) 17-item UWES	The results supported the hypothesis stating that organizational identification mediates the relationship between engagement and interpersonal leadership. Further, the relationship between organizational commitment and interpersonal leadership was mediated by engagement. The mediation role of engagement between job tension and organizational identification was also supported.
Lee and Ok (2015)	Core self-evaluations and psychological climate (internal service, customer orientation, information and communication, and managerial support).	-----	The 9-item UWES (Schaufeli, et al., 2006).	The results revealed that the proposed positive relationships between individuals' core self-evaluations (generalized self-efficacy, self-esteem, locus of control, and emotional stability) and perception of organization environment (the four components of psychological climate) were supported.
Timms, Brough, O'Driscoll, Kalliath, Siu, Sit, and Lo (2015)	Organizational culture (flexible work arrangements)	Turnover intentions and psychological health (Anxiety/depression)	The 9-item UWES (Schaufeli, et al., 2006).	The results supported the hypotheses proposing that a supportive organizational culture positively increases employees' levels of engagement, and decreases their levels of psychological strains and intentions to leave the organization. Further, opposite relationships were found with hindering aspects of organizational culture (lack of flexible

Author(s)	Antecedents	Consequences	Measure	Key Findings
				work arrangements). This implies that managers have to put extra attention to creating cultural norms that result in flexible work arrangements in the work place.
Meng and Wu (2015)	Perceived fairness of merit pay and leader-member exchange (LMX)	-----	Schaufeli et al.'s (2002) 17-item UWES	Individuals' perceptions of the procedural fairness of organization's merit pay systems and policies significantly influence their levels of engagement. Further, LMX mediates the relationship between perceived fairness of merit pay and employee engagement. The findings indicated that leaders who promote respect and dignity among their subordinates are more effective in stimulating employee engagement in the work place.
Popli and Rizvi (2015)	Leadership styles (transformational leadership, transactional leadership, and laissez-faire leadership)	Service orientation	E3 (DDI) 20-item scale	Transformational leadership was the only leadership behavior found to moderately correlate with employee engagement. Further, employee engagement was found to be strongly associated with service orientation.
Shuck, Zigarmi, and Owen (2015)	The three dominions of self-determination theory (autonomy, competence and relatedness)	Work intentions	Four measures were used to capture the theoretical structure of employee engagement: the Job Engagement Scale (JES; Rich et al., 2010), the 9-item UWES (Schaufeli, et al., 2006). Harmonious and Obsessive Passion (HOPS; Vallerand et al., 2003).	The results demonstrated positive associations found between the three dimensions of STD and employee engagement. Only the UWES and Harmonious Passion scale reported a mediation effect of employee engagement between SDT and work intentions.

Author(s)	Antecedents	Consequences	Measure	Key Findings
Akhtar, Boustani, Tsivrikos, and Chamorro-Premuzic (2015)	Trait emotional intelligence ,work-specific personality (interpersonal sensitivity, adjustment, and ambition), and the Big Five personality traits,	-----	The 9-item UWES (Schaufeli, et al., 2006).	Among the Big Five personalities, only conscientiousness, openness to experience, and extroversion were found to be significant predictors of employee engagement. In addition to emotional intelligence, the three work-related personality traits also had a significant predicting effect on engagement. However, the strongest association was found between the trait emotional intelligence and employee engagement.

Further, positive mediation effects were found for the three psychological conditions: meaningfulness positively mediated the relationship between role fit and job enrichment and engagement; psychological availability positively mediated the relationship between availability of resources and engagement; safety positively mediated the relationship between supportive supervision and rewarding co-worker and engagement.

More recently, the job demands-resources (JD-R) model has received inconsistent attention from researchers in the engagement literature. According to Schaufeli and Bakker (2004), job demands refers to the psychological, physical, social, or any aspects of the job that require individuals' to apply sustained psychological and physical effort while performing their tasks. Job resources refer to the availability of those psychological, physical, social resources (e.g. autonomy, support, feedback, and coaching) that reduce the effect of job demands (e.g. workload, emotional effort, conflicting requirements, and undue expectations), enhance the achievement of work goals, and prompt individuals' personal growth and development (Schaufeli and Bakker, 2004).

The primary premise of the JD-R framework is that job demands and resources affects engagement via a number of processes. Job resources initiate a motivational state that lowers individuals' levels of burnout, hence, promoting positive attitudes towards their job and enhancing their levels of engagement. This can be explained through the lens of intrinsic and extrinsic motivation: the availability of job resources intrinsically motivates the individuals' psychological needs such as development and growth, and extrinsically motivates them by facilitating their achievement of role-related objectives (Bakker and Demerouti, 2007).

Consequently, high job demands deplete individuals' energy and result in increased stress, which might lead to higher levels of burnout and disengagement. Thus, the availability of job

resources (e.g. support, job security, career opportunities, pay, role clarity, and skill variety) facilitate individuals' adaptation with job demands (e.g. work load, time pressure, and conflicting requirements) and reduce the influence of job demands on burnout and job strain that might lead to disengagement (Bakker and Demerouti, 2007).

Recently, personal resources have been introduced as an expansion to the JD-R model. Personal resources refer to individual differences (e.g. optimism, self-efficacy, and self-esteem) that can be activated by job resources. Individuals with these characteristics are expected to be more engaged as they have control over their work environment and become malleable and adaptive to change. Further, personal resources have been found to mediate the relationship between certain job resources (e.g. opportunities for growth and professional development, supervision support, autonomy, and social support) and employee engagement (Xanthopoulou, Bakker, Demerouti, and Schaufeli, 2007).

It can be noted that the JD-R model stems from the self-determination theory (SDT) (Fernet, Austin, and Vallerand, 2012). SDT is a well-established theory that proposes two forms of motivation: intrinsic and extrinsic motivation with its three main components: autonomy, relatedness, and competence (Koestner and Losier, 1996). In addition to Schaufeli et al. (2002), others (e.g. Anitha, 2014; Bakker, Tims, and Derks, 2012; Rothmann and Welsh, 2013; Shuck, Zigarmi, and Owen, 2015) have proposed core job characteristics (opportunities for growth and professional development, coaching, autonomy, and social support) to be important predictors of employee engagement. These factors refer to the concept of empowerment, which in turn relates to the intrinsic motivational domain of self-determination theory. SDT proposes that the fulfilment of the key psychological needs (autonomy, competence, and relatedness) is essential to have autonomously motivated individuals (Gagne and Deci, 2005). Autonomy refers to individuals' need to make decisions

and control their actions. Competence is defined as the individuals' control over the outcomes of their actions. Relatedness refers to the individuals' need to be in a social network where a mutual care is maintained (Koestner and Losier, 1996).

Similarly, self-determination theory is also present in Kahn's (1991) model of three psychological conditions. Kahn (1990) conceptualized engagement in terms of the individuals' needs for fulfilment of meaningfulness, availability of resources, and safety. His argument stated that individuals experience meaningfulness when their work is varied, delineated, challenging, and autonomous, reflecting similar needs proposed by self-determination theory.

In addition to Kahn's (1990) conceptualization, autonomy has been heavily included in engagement models and several scholars (e.g. Arifin et al., 2014; Rivera Fitzpatrick, and Boyle, 2011; Shuck et al., 2015) have claimed that it is a key determinant of employee engagement. This overlaps with SDT, as autonomy is a core component of that theory. Further, Kahn's (1990) psychological safety, which refers to the support and trust maintained by having interpersonal relationships in the work place, bears a direct linkage to the relatedness need of SDT.

Although employee engagement is considered a motivational construct, viewing engagement through the lens of SDT (intrinsic and extrinsic motivation), to explain the underlying mechanism of how certain employees decide to engage, is limited as engagement is considered a multidimensional construct that contains dimensions that exceed the scope of an intrinsic-extrinsic based argument. For instance, Macey and Schneider (2008) argued that employee engagement refers to passionate, proactive, and persistent individuals, rather than simply motivated individuals. Further, Crawford, LiPine, and Rich (2010) and Saks (2014)

noted in their meta-analyses on the JD-R model that job challenge demands and job resources are important factors needed to facilitate employee engagement. However, the authors considered job demands and job resources as broad working conditions and the mechanism of how employees build engagement cannot be explained by only relying on and examining those factors.

Instead, the notion of state-trait like engagement (Macey and Schneider, 2008) is considered more logical to explain the mechanism of how individuals build engagement. Several researchers (e.g. Hoon-Song, Kolb, Hee-Lee, and Kyoung-Kim, 2012; Robinson et al., 2004; Zhu et al., 2009) argued that employee engagement is a two-way relationship between the employer and the employee, moderated by leaders, and it is an outcome of the interaction between the environment and the person (Shuck et al., 2011). Aligned with this argument and through the lens of social exchange theory, the following sections seek to examine leadership styles and personality proposing, and potential associations between these concepts and employee engagement.

4.3 Leadership Styles

Due to the business-environmental changes such as competition, organizational restructuring, and governmental regulations, employee engagement and the relationship between the leader and employee need to receive more investigation and concern (Heger, 2007). The role of leadership has been shifted to increasing motivation, managing change, modifying values, and encouraging innovation and problem solving competencies within the workforce (Kreitner and Kinicki, 2004; Macey and Schneider, 2008). It has been argued that leadership is a driver of employee engagement since employees' performance is inextricably

linked with leaders' practices (Markos and Sridevi, 2010; Popli and Rizvi, 2015; Truss et al., 2014; Wefald et al., 2011).

From a social exchange point of view, individuals interact differently within the social structures they exist in and accordingly perform tasks and achieve objectives based on meeting their expectations of rewards such as autonomy, praise, recognition, and compensation (Standford, 2008). Further, Standford (2008) considered trust as an outcome of the social approval exchanged between the organization, especially the leader, and employees who positively or negatively might be affected by such an exchange. Cropanzano and Mitchell (2005) suggested that individuals form relationships based on social exchange and the existence of these relationships depends on how individuals assess the effectiveness of that exchange. According to the assessment of the relationship, individuals demonstrate actions or behaviours that determine the benefit or cost of the relationship. Derived from that, some researchers (e.g. Cropanzano and Mitchell, 2005; Saks, 2006) considered organizations to follow the same rules and principles of social exchange. Saks (2006) claimed that the exchange occurs when employees conclude that their needs and expectations are met, hence, they respond by increasing their levels of engagement. This argument is consistent with Robinson et al.'s (2004) definition of engagement of a two-way relationship between employees and their organization; engaged employees feel obligated to respond towards the socio-emotional and economic resources received from the organization. This reaction can be shown by showing more energy, enthusiasm, passion, and persistence while performing job tasks and striving to achieve the organizational goals.

Rooted in the social exchange theory, the Leader Member Exchange (LMX) theory embraces the notion that individuals seek out patterns of influence relationships while interacting with their leaders in the context of work experience (Ilies, Nahrgang, and Morgeson, 2007; Van

Gils, van Quaquebeke, and van Knippenberg, 2010). The quality of these interactions and exchanges is shaped by fulfilling role expectations; it depends on the willingness of each dyad member to abide to his/her role and encounter the role expectations (Epitropaki and Martin, 2005). Likewise, in defining employee engagement, Shuck et al. (2011) stated that engagement is an outcome of the interaction between the environment (tangible and intangible elements) and the person (internal and external characteristics). Further, the amount of energy dyadic members tend to apply to their tasks completion and role performance depends on the level of meeting role expectation (tangible and intangible exchanges). The greater the value of the exchange members perceive the higher level of energy they tend to exert in role performance (Cropanzano and Mitchell, 2005). This notion of individual's willingness to exert extra energy closely mirrors many of the underlying conceptualizations of employee engagement; highly engaged employees bring high amount of cognitive, emotional, and physical energies to role performance (Dollard and Bakker, 2010; Rich et al., 2010; Saks, 2006).

Further, Spillane (2006) noted that due to the leader-member interaction and exchange, individuals learn to trust each other and understand one another's weaknesses and strengths. That will result in developing an intimate relationship and distributing leadership among individuals who will collaborate effectively to solve any business challenge by exchanging roles and knowledge (Graen and Graen, 2006; Spillane, 2006). This aligned with the notion stating that engaged employees persist through challenges, strive to solve problems, and direct their role performance towards achieving the organizational goals (Shanmugam and Krishnaveni, 2012; Witemeyer et al., 2013).

Similarly, transactional leadership theory was founded on the notion that leader-followers relationships are based on implicit bargains or series of exchanges between leaders and

subordinates (Bass, 1985; Burns, 1978). The leader's responsibility is to identify the actions to be taken by followers in order to reach certain performance standards and achieve specific valued and desired outcomes (Bass 2008; Den-Hartog, House, Hanges, Ruiz-Quintanilla, and Dorfman, 1999; Judge and Piccolo, 2004). This implies that the leader should clarify the task requirements roles, and responsibilities followers have to carry on in order to achieve personal outcomes as an exchange for the leadership actions (Bass, 2008; Bass and Riggio, 2006). Transactional leadership is characterized by consisting of multiple dimensions. In the first dimension (reinforcement or contingent rewards), leaders identify and clarify what individuals need to perform, and reinforcement is provided according to the follower's compliance (Bass, 2008; Bass and Riggio, 2006; Judge and Piccolo, 2004). The contingent reward is provided in any form of recognition, recommendation for pay increase, and nomination for promotion. A key component of the contingent dimension is the punishment component where leaders react negatively to followers' deviation from the performance standards and norms. It may take any form of displayed disapproval, reprimands, and excluding the individual from the leader's in-group preferred employees (Bass, 2008). Management by exception is another dimension of transactional leadership where leaders take actions when the performance standards are not met or some tasks are done wrong (Bass, 2008; Judge and Piccolo, 2004). In this dimension, subordinates are given some autonomy to do the tasks in their ways as the performance standards are maintained and the objectives are met (Bass and Riggio, 2006). Management by exception has two forms: active or passive. Active leaders specify the standards of effective performance for followers to comply, proactively search for any deviation from the standardized procedures, and take actions when such deviations appear. Passive leaders are the ones who wait for problems to materialize

and only interfere and take actions after performance deviations have occurred (Bass, 2008; Bass and Riggio, 2006).

However, transformational leadership is seen as more effective in creating strong social identification between the followers and the vision, objectives, and mission of the leader and the organization than the gain-exchange relationship of the transactional leadership (Bass, Avolio, Jung, and Berson, 2003; Daft, 2015). Bass and Riggio (2006) suggested in the transformational theory that individuals perform more effectively when they are led by leaders who motivate, inspire, and create an environment that enables them to do more than what they are expected to do. The transformational leader is seen as the one who has certain personal or leadership attributes, such as inspirational motivation, idealized influence (charisma), intellectual stimulation, and individual consideration that enable him/her to share values, needs, and vision of future, and go beyond the simple transactions or just reward exchange relationships with subordinates (Bass and Riggio, 2006). In the first dimension of the transformational leadership, the charismatic leaders instil faith, respect, and pride in their subordinates, increase awareness of value, importance, and outcome value, and transmit a sense of mission (Bass, 2008). Such an arousal of followers will attract intense feeling of admiration and love from followers and will return in self-actualization with the leader (Bass, 2008). In other words, the subordinates are strongly affected by their leader to the degree they consider him/her ideal. The inspirational motivation, conceptualized as a sub factor of the idealized influence one, describes the leaders' capacity to behave as models for their followers, communicate vision, and use symbols to direct and focus subordinates' efforts (Bass, 2008). Further, transformational leaders motivate their followers by providing challenging and meaningful tasks and showing enthusiasm, optimism, and trust in their subordinates' abilities in achieving goals and addressing the organizational values and vision

(Bass et al., 2003). In the third dimension (individual consideration), leaders stimulate followers learning experience and emphasize teaching, coaching, and mentoring of subordinates by delegating projects and leadership tasks with followers (Carmeli, Atwater, and Levi, 2011). Such leadership behaviours are seen as significant in positively linking the individual needs to the organizational accomplishment of mission and objectives (Bass, 2008; Bass and Riggio, 2006). The last dimension is the intellectual stimulation; leaders emphasize reasoning before taking action and arouse their subordinates to be initiative, creative, logical, and reasonable in solving problems and facing challenges (Bass 2008; Bass and Riggio, 2006).

Albrecht (2010) claimed that employees are engaged with leaders who remain both close and distant; they are available and close enough when their subordinates need insight, coaching, and support at certain times, and they are distant enough to give their employees the autonomy to make decisions and take up their responsibilities. Several researchers (e.g. Hoon-Song et al., 2012; Robinson, et al., 2004; Zhu et al., 2009) argued that engagement is a two-way relationship between the employer and the employee moderated by leaders who inspire and enthuse their followers. Several practitioners and scholars have also suggested that the transformational leader has the attributes that are significantly associated with engagement. In other words, the four components of transformation leadership: idealized influence, inspirational motivation, intellectual motivation, and individualized consideration, are linked to the engagement construct. Supporting, building trust, invigorating adaptability and proactivity, and providing meaning and challenge for followers (Bass, 1985) are consistently linked to employee engagement (Xu and Thomas, 2011). Yukl (2013) added to the conceptualization of transformational leadership and stated that transformation leaders, in addition to building trust, loyalty, admiration, and respect among their followers, motivate

their subordinates to do more than what they are expected and requested to do. This aligns with the engagement idea of extra role behaviour engaged employees tend to display while performing their roles (Macey and Schneider, 2008).

Although transformational leadership is expected to be more effective in fostering employee engagement (Macey and Schneider, 2008), every day task performance should not be neglected and should be tracked in a very systematic way, where HR practices such as managing performance and compensation can be maintained and controlled (Newman and Harrison, 2008). In terms of employee engagement, an effective leader clarifies tasks and responsibilities, focuses on functions at certain situations, and inspires, motivates, delegates duties, and encourages creativity at others. Thus, a leader of various transformational and transactional competencies is expected to be more effective in fostering and enhancing employee engagement (Newman and Harrison, 2008). Transactional leadership is based on an exchange relationship between the leader and employees by using reward and punishment systems to encourage employee performance and gain employees cooperation (Bass and Riggio, 2006).

Leadership researchers (e.g. Burton, Sablinski, and Sekiguchi, 2008; Erkutlu, 2008; Griffin, Parker, and Mason, 2010; Judge and Piccolo, 2004; Lee, 2005) have found consistent associations between leadership behaviours and other constructs, considered by some to be part of employee engagement construct such as motivation, satisfaction, commitment, and organizational citizenship (see Chapter One). Thus, leadership styles can be associated with employee engagement, and this relationship needs to be further investigated (Albrecht, 2010; Macey and Schneider, 2008; and Xu and Thomas, 2011).

Schaufeli and Bakker (2004) conducted a study on a sample selected from four different types of organizations to measure the proposed associations between burnout and engagement, and certain predictors and consequences. Indirectly, the study assessed some aspects of transformational leadership (performance feedback and supervisory coaching) and its impact on employee engagement. The results revealed that two variables of the individual consideration dimension (coaching and feedback) were positively connected to Schaufeli et al.'s (2002) three dimensions of engagement (vigor, absorption, and dedication). Similarly, May et al. (2004) conducted a field study on a sample consisting of employees and managers selected from a U.S. insurance company. The results reported significant relationship found between leadership and employee engagement. The leader's positive feedback to employees and supervisor relations, defined as the leader's concern for his/her subordinates' feelings and needs, significantly correlated with employee engagement. The results, also, reported a significant relationship found between meaningfulness, which assesses the meaning employees find in their workplace, and employee engagement. The characteristics of meaningfulness and supervisory relations can be conceptually related to some dimensions of the transformational leadership, especially to the work related meaningfulness, the developmental orientation, and the relationship-centered aspects of individual consideration.

Rothmann and Welsh (2013) conducted a study on 309 employees working in organizations in Namibia to examine the indirect relationship between subordinates and their supervisors. Mediated by Kahn's (1990) psychological conditions, the results revealed a moderate relationship between relationships with leaders and employee engagement. Further, the only strong associations found with engagement were demonstrated by job enrichment and work-role fit. Along similar lines, Hansen, Byrne, and Kiersch (2014) hypothesized that organizational identification mediates the relationship between interpersonal leadership

(transformation leadership, informational justice, and interpersonal justice) and employee engagement. A Sample of 451 employees working for an international company in USA and Canada replied to an online survey (Schaufeli et al.'s, 2002, 9-item UWES). The direct relationship between leadership and engagement was found to be weak while the indirect path via identification was supported by the results. In spite of the moderate indirect relationship found between leadership behaviour and employee engagement, the direct association has received limited attention in the engagement literature.

In an attempt to measure the direct impact of leadership behaviour on employee engagement, Atwater and Brett (2006) used the Gallup Workplace Audit (GWA) to measure engagement under the effect of three dimensions of leadership behaviours labelled relationship-oriented (consideration and employee development) and task-oriented (performance-orientation). They found that leaders who showed care of direct report and recognition of employees' performance were more effective in engaging their followers. Similarly, Alban-Metcalfe and Alimo-Metcalfe (2008) and Papalexandris and Galanaki (2009) used quasi-measures to link leadership with engagement. In both studies, engagement was used as a blanket-term covering a wide range of measures comprising commitment, effectiveness, motivation, and job satisfaction.

Metzler (2006) conducted a study to examine the direct relationship between engagement and the transformational and transactional leadership styles. The study was conducted in an educational setting where 251 university students responded to the Multiple Leadership Questionnaire (MLQ) instrument to assess the perceived leadership of student's supervision and the Utrecht Work Engagement Scale to evaluate their levels of engagement. In general, the results revealed that the transformational leadership style was more predictive of Schaufeli et al.'s (2002) three engagement dimensions (vigor, absorption, and dedication)

than the transactional leadership style. Intellectual stimulation was found to be the only subscale that significantly correlated with student absorption.

Wefald et al. (2011) conducted a study to, empirically, investigate the mediating role employee engagement has between transformational leadership and personality, and the work outcomes of job satisfaction, affective commitment, and intentions of turnover. A sample of 382 managers and employees were asked to complete an online questionnaire. Employee engagement was assessed by the short version of the Utrecht Work Engagement Scale (UWES-9) and Shirom's (2003) 12-item Vigor Scale. The 44-item Index of John and Srivastava (1999) was used to evaluate the big five personality factors, whereas the Positive and Negative Affect Schedule (Watson, Clark, and Tellegen, 1988) was used to assess trait positive affect. Surprisingly and in contrast to prior research, the results reported a weak association between engagement and the transformational leadership.

Recently, Wang and Hsieh (2013) investigated the direct impact of authentic leadership (supervisors' consistency between words and actions, and supervisors' moral perceptions) on employee engagement. A total of 386 employees working for organizations in the manufacturing and service industries in Taiwan were administered. The survey questionnaire included items assessing authentic leadership (Walumbwa, Avolio, Gardner, Wernsing, and Peterson's, 2008, 16-item scale), employee trust (McAllister's, 1995, 11-item scale) and employee engagement (Schaufeli et al.'s, 2002, 17-item UWES). The two dimensions of authentic leadership (supervisors' consistency between words and actions, and supervisors' moral perceptions) positively predicted engagement. Further, trust was positively associated with engagement and partially moderated the relationship between engagement and authentic leadership.

Anitha (2014) included leadership in a nomological framework (work environment, team and co-worker relationships, work place well-being, compensation, training and development, and organizational policies) to investigate its direct impact on employee engagement. A self-developed engagement survey questionnaire was administered to 383 employees from lower and middle managerial levels working for organizations registered in Coimbatore District Small Industries Association. Although the proposed factors were found to be determinants of employee engagement, the strongest impact came from team and co-worker relationships and work environment.

Strom, Sears, and Kelly (2014) conducted a study to examine the moderating role leadership styles (transactional and transformational) have between organizational justice and employee engagement. The sample consisted of 384 participants working for organizations in USA and they were requested to answer an online survey (leadership: MLQ, Bass and Avolio, 1990; engagement: the 17-item UWES, Schaufeli et al., 2002). Consistent with the theoretical propositions, the results revealed that employees who reported low perceptions of transactional leadership demonstrated higher levels of engagement than those with high perceptions of transactional leadership. Surprisingly, the moderating role of transformational leadership was not found significant. In contrast with De Cremer's (2006) previous findings, the hypothesis stating that procedural and distributive justice in association with engagement would be more pronounced when employees perceive high transformational leadership was not supported.

In contrast, Breevaart, Bakker, Hetland, Demerouti, Olsen, and Espevik (2014) found that transformational leadership was significant in predicting employee engagement. In examining the direct influence of daily transactional (contingent reward and management by exceptions/active) and transformational leadership styles on daily employee engagement, the

researchers asked 61 naval cadets to answer a diary questionnaire (The 9-item UWES; Schaufeli, Bakker, and Salanova, 2006) for 34 days while sailing. The results revealed that leaders who displayed transformational behaviours and provided contingent rewards were more effective than those who show MBE/active behaviours. In other words, contingent reward and transformation leadership facilitate autonomy and support in the work environment; hence, enhance individuals' willingness to engage. In contrast, Popli and Rizvi (2015) conducted a single cross sectional study on 106 managers working for private service sector firms in India. The E3 20-item engagement survey of Development Dimensions International (DDI) was used to assess employee engagement. The only significant association was found between transformational leadership behaviour and employee engagement (similar to Popli and Rizvi, 2015).

Since there has been no mutual agreement on the exact definition of employee engagement and its measurement, the strength of the empirical findings of the association between leadership styles and employee engagement are still questionable. Drawing on the notion stating that engagement is a two-way relationship (individuals interact with the surrounding environment including employers, Robinson et al., 2004), it is proposed that future research needs to examine further the role of leadership styles as predictors of engagement on the basis that employee perceptions of their environment, and their adaptability to the changing job resources and demands, are shaped by their interaction with leaders' behaviours (Albrecht, 2010; Macey & Schneider, 2008, Truss et al., 2014). The following hypotheses are therefore proposed:

Hypothesis 1. There is a positive relationship between employee engagement and transformational leadership behavior.

Hypothesis 2. There is a positive relationship between employee engagement and “contingent reward” leadership behavior.

4.4 Personality Attributes

In addition to the role the leader could play in creating the conditions where employees can be highly engaged, several researchers (e.g. Albrecht, 2010; Macey and Schneider, 2008; Mäkikangas et al., 2013; Vosburgh, 2008) suggest that individuals with certain attributes and traits are expected to experience work conditions positively and in an engaged manner. Schaufeli et al. (2002), for example, point to trait engagement by stating that engaged employees are persistent in facing challenges and they display a positive, affective, and motivational state of fulfilment. Although their conceptualization is consistent with what would be considered state engagement, the positive affective state and persistence could be closely aligned to trait engagement where certain types of people are more likely to engage over time.

Macey and Schneider (2008), in their classification of trait engagement, also suggest that employees with proactive personality (the individual's tendency to influence the environment, Crant, 1995), autotelic personality (the individual enjoys activities due to his/her own sake rather than for certain reward, Csikszentmihalyi, 1988), positive affect personality (the individual being energetic, strong, enthusiastic, active, and inspired, Watson et al., 1988), and conscientiousness (the individual is characterized of being hard working, confident, ambitious, and resourceful (Roberts, Chernyshenko, Stark, and Gold-berg, 2005) are more likely to be highly engaged by tending to experience work positively, actively, and adaptively. Consistent with Macey and Schneider (20018), Mäkikangas et al. (2013) found that conscientious personality and extraversion personality were associated with high levels of engagement. In addition, the authors found that an individual simultaneously possesses

several personality traits. Thus, a holistic understanding of how those dispositions framed together will explain how individuals express different emotions and interactions in different work settings and role challenges. Further, they found that optimism, self-efficacy, and emotional stability, as dispositions, are related to engagement. Individuals who are high in those traits tend to perceive the environmental stimuli positively and genially; they can influence the work situation and failure should not negatively affect their self-perception of worthiness. Employees who are high in personality traits such as proactive personality, autotelic personality, positive affect personality, conscientious personality, and extraversion personality are therefore expected to experience engagement.

The trait positive affect reflects the extent to which an individual reports vitality and relish of life (Watson and Tellegen, 1985). Macey and Schneider (2008) speculated that state like engagement is closely tied to the positive affective employees, who are characterized by being attentive, alert, inspired, proud, dedicated, and enthusiastic. Further, the trait positive affect entails the individual's tendency to actively interact with the surrounding environment (Staw, 2004) and that will enhance one's tendency to actively participate in achieving the organizational objectives (VandenBos, 2007). Although the empirical studies that have examined the relationship between trait positive affect and employee engagement are limited, positive affect is expected to at least covary with employee engagement as the latter refers to the individuals' state of enthusiasm, pride, passion, and emotional positivity (Macey and Schneider, 2008; Mäkikangas et al., 2013; Wefald et al., 2011).

Proactive personality means that individuals consistently scan for opportunities, take action, show initiative, and persist until they change things for the better and overcome oppositions. Proactive individuals are adaptive and unconstrained by situational factors, as opposed to those who are tend to react passively, and who are shaped by the environment (Bateman and

Crant, 1993). Macey and Schneider (2008) pointed out that proactive personality predicts proactive behaviour more than positive affect; proactive individuals tend to display more energy and perseverance, and go beyond the typical expected task performance.

Autotelic personality refers to the individuals' general propensity to perceive threats as enjoyable challenges. Further, they engage themselves in activities and tasks for their own self-accomplishment, rather than for receiving specific gains (Csikszentmihalyi, 1988).

Individuals with autotelic personality tend to transfer threats into enjoyable challenges and are motivated by their own self-accomplishment rather than rewards for performing tasks and achieving goals. They are characterized by their tendency to display high levels of self-efficacy (set challenging objectives), personal innovativeness (find innovative ways to perform role tasks), and focussed attention (sustain focus and absorbed while performing challenging tasks), (Csikszentmihalyi, 1988; Nakamura and Csikszentmihalyi, 2002). Thus, they are expected to identify challenging goals, actively involve themselves in endeavours that foster skill development and goals accomplishment, sustain focus in performing tasks, and seek developmental orientation and feedback (Nakamura and Csikszentmihalyi, 2002). The potential association between autotelic personality and employee engagement can be informed in reference to a "growth mind-set", which refers to an individual's ability to transfer failure and setbacks into energizing and challenging goals. Engaged employees display proactive behaviours (extra effort, passion for development, and positive interpretations of failure) that promote enthusiasm, focus, and energy in the workplace and help to persist through challenges (Heslin, 2010).

Conscientiousness as a trait is also considered, by several researchers (e.g. Hirschfeld and Thomas, 2008; Inceoglu and Warr, 2011; Macey and Schneider, 2008), to predict employee

engagement. Conscientiousness encompasses two main components: dependability and achievement striving (Hough and Schneider, 1996). The former involves conventionality and self-restrictive caution whereas the latter involves individuals' self-expanding and striving towards reaching performance mastery and excellence (Hough and Schneider, 1996). Conceptually, "achievement striving" is seen as the component that can be linked to the 'identification' dimension of engagement; individuals are aware of the business context, consistent to reach high levels of performance, and determined to achieve the organizational objectives (Macey and Schneider, 2008; Wefald et al., 2011).

Individuals with the trait of extraversion are also expected to report higher levels of engagement as they are characterized by displaying high levels of self-confidence, energy, and activity (Shirom, 2003; Wefald et al., 2011). Extroverts tend to be more sociable, assertive, and outgoing. They also tend to maximize benefits from social relationships with leaders and colleagues and bear the cost of putting more time, energy, and effort into sustaining those relationships (Milfont and Sibley, 2012). Logically, it makes sense to link extroversion to employee engagement as both concepts emphasize the notion of high energy and social exchange relationships (Kim, Shin, and Swanger, 2009).

More recently, Lee and Ok (2015) examined the effect of individuals' core self-evaluations (generalized self-efficacy, self-esteem, locus of control, and emotional stability) and perception of organization environment (the four components of psychological climate) on employee engagement. The sample consisted of 394 employees and managers working in the hospitality industry in America. Employee engagement was assessed using the UWES 9-item short version (Schaufeli et al., 2006), core self-evaluations was evaluated by using Judge, Erez, Bono, and Thoresen's (2003) 12-item scale, whilst individuals perceptions of psychological climate was evaluated with Amenumey and Lockwood's (2008) 13-item

scale. The research findings reported significant relationships found between the proposed antecedents and employee engagement. Specifically, the hierarchical regression reported that core self-evaluations positively correlated with employee engagement ($\beta = .45$; $p < .01$). Further, the four dimensions of psychological climate (Customer orientation, managerial support, internal service, and information/communication) were found to be significant predictors of engagement ($\beta = .40, .42, .37$, and $.44$, respectively).

Wefald et al. (2011) found a significant relationship between employee engagement and extraversion, conscientiousness, and positive affect. Further, the trait positive affect emerged as the strongest predictor of employee engagement amongst the other personality variables. Such findings lend support to Macey and Schneider's (2008) propositions in that engagement is closely tied to trait like variables in general and positive affect in particular.

Langelaan, Bakker, Van Doornen, and Schaufeli (2006) investigated whether employee engagement and burnout can be distinguished in association with personality attributes and temperament. Dutch employees were asked to respond to the Utrecht Work Engagement Scale (Schaufeli et al., 2002) to assess employee engagement and the NEO-Five Factor Inventory (NEO-FFI; Costa and McCrae, 1992) to identify the big five dimensions of personality. The results reported that employee engagement was characterized by high extraversion in combination with low neuroticism. Although the researchers did not focus on openness to experience, agreeableness, and conscientiousness, they concluded that extraversion and neuroticism are statistically significant antecedents of employee engagement, but the findings needed to be supported and confirmed by future research, in addition to examining other personality variables.

Similarly, Joseph, Luyten, Corveleyn, and De Witte (2011), in examining the effect of the Big Five dimensions of personality on burnout and engagement, conducted a study among 511 Indian priests. The Maslach Burnout Inventory (MBI; Maslach and Leiter, 1997) was adapted to measure burnout, whereas employee engagement was evaluated by using the Utrecht Work Engagement Scale (UWES; Schaufeli et al., 2002). The big five dimensions of personality were assessed by using the NEO Five-Factor Inventory (NEO-FFI; Costa and McCrae, 1992). The results revealed that neuroticism was negatively linked to engagement and positively associated with burnout. Moreover, they found that openness to experience, agreeableness, extraversion, and conscientiousness positively correlated with engagement and negatively with burnout.

Kim et al. (2009), in surveying 187 employees selected from quick service restaurants, conducted a study to investigate a model that assessed the notion of the influence of personality factors on employee engagement and burnout. In contrast to the findings of prior research, there was no evidence of any significant relationship between employee engagement and extraversion, while high conscientiousness and low neuroticism significantly correlated with engagement.

Mostert and Rothmann (2006) included emotional stability, conscientiousness, agreeableness, and extraversion when evaluating the relatedness of the Big Five personality attributes to employee engagement and burnout among 1,794 police officers in South Africa. The Utrecht Work Engagement Scale (UWES; Schaufeli et al., 2002) and the Maslach Burnout Inventory (MBI; Maslach and Leiter, 1997) were used to assess engagement and burnout respectively, while the Personality Characteristics Inventory (PCI; Mount and Barrick, 2002) was used to evaluate respondents' personality attributes. Similar to Langelan et al.'s (2006) findings, the results reported that extraversion and emotional stability showed

a significant positive correlation with employee engagement. In addition, employee engagement and agreeableness were found to be significantly and positively linked. However, the strongest positive relationship was found between conscientiousness and employee engagement. Similarly, Handa and Gulati (2014) conducted a study on 333 employee working in retail industry in India. The findings reported positive relationships found between personality attributes (extraversion and conscientiousness) and employee engagement.

Further, Bakker, Demerouti, and Brummelhuis (2012) examined the relatedness of employee engagement to active learning, and task and contextual performance in association with conscientiousness. Twenty items that assess conscientiousness were selected from the Dutch version of the Five-Factor Personality Inventory (Hendriks, Hofstee, and De Raad, 1999) and the short version of the Utrecht Work Engagement Scale (9-UTWS; Schaufeli et al., 2006) was used to evaluate employee engagement. The results showed that employees who score high in conscientiousness reported high levels of engagement and they translated that in increased active learning and task performance. In contrast, Liao, Yang, Wang, Drown, and Shi (2012), in examining the moderation role of personality attributes between LMX and employee engagement among 235 employees in China, found that the responses of those who were higher in conscientiousness reported a negative LMX-engagement relationship. However, the LMX-engagement relationship was found to be stronger with those who were lower in neuroticism and higher in extraversion.

In addition to the Big Five personality traits, Akhtar, Boustani, Tsivrikos, and Chamorro-Premuzic (2015) included trait emotional intelligence and three work-specific personality traits (interpersonal sensitivity, adjustment, and ambition) when investigating the association between personality attributes and employee engagement. Engagement was measured with

the short version (9 items) of the UWES (Schaufeli et al., 2006). Trait emotional intelligence was measured by using the 30-item self-report scale of Petrides and Furnham (2006). The Big Five personality attributes were assessed by using the Ten-Item Personality Inventory (TIPI; Gosling, Rentfrow, and Swann, 2003), while the short version of Hogan Short Personality Inventory (HPI; Hogan and Hogan, 1997) was used to evaluate the three work-specific personality attributes. The results revealed that conscientiousness, openness to experience, extroversion, trait emotional intelligence, and the three work-specific personality attributes demonstrated predicting effect on employee engagement. Further, trait emotional intelligence was found to be the strongest predictor of employee engagement.

Among the few empirical studies that investigate the association between positive affect and employee engagement, Salanova, Llorens, and Schaufeli (2011) conducted longitudinal studies on samples consisting of 274 school teachers and 100 university students. The dimensions of job-related positive affect were assessed by using the enthusiasm depression scale (Warr, 1990), satisfaction affect-based scale (Kunin, 1998), and the comfort-anxiety scale (Cifre and Salanova, 2002), whilst employee engagement was measured by using the Spanish version of Schaufeli et al.'s (2002) 17-item UWES. The results revealed that efficacy beliefs, via positive affect, significantly influenced engagement. Amongst the dimensions of positive affect, enthusiasm was found to be the strongest predictor of engagement. Again, these findings support the theoretical linkage expected to exist between trait positive affect and employee engagement, as most definitions of employee engagement have introduced enthusiasm as a dimension of the construct and a main characteristic of engaged employees.

The association between proactive personality and employee engagement, as with trait positive affect and trait autotelic, has received a limited empirical research. Bakker et al.

(2012b), in their study “Proactive personality and job performance: the role of job crafting and work engagement”, examined the role the proactive personality has in predicting employee engagement. The study sample consisted of 190 employees recruited from various organizations in Netherlands. The Dutch version of Bateman and Crant’s (1993) 6-item scale was used to measure proactive personality and the 9-item version of the Utrecht Work Engagement Scale (9-UTWS; Schaufeli et al., 2006) was used to assess employee engagement. The results strongly supported the hypothesis proposing a relationship to exist between proactive personality and employee engagement; individuals who report higher proactive personality were most likely to be engaged. As suggested by the findings, employees with a proactive personality tend to craft their jobs (maximize the social and structural job resources, and manage job challenges), adjust the surrounding work environment, manage to remain engaged, and perform tasks very well (similar to Christian et al., 2011). However, the direct association between proactive personality and employee engagement needs to be further investigated.

To differentiate state engagement from trait engagement, and whether particular personality traits predict engagement levels, the following hypotheses are proposed:

Hypothesis 3. Employees with higher positive affect will have higher levels of engagement.

Hypothesis 4. Employees with higher autotelic personality will have higher levels of engagement.

Hypothesis 5. Employees with higher proactive personality will have higher levels of engagement.

Hypothesis 6. Employees with higher conscientiousness will have higher levels of engagement.

Hypothesis 7. Employees with higher extroversion will have higher levels of engagement.

Chapter 5. Study I: Engagement Scale Development

5.1 Introduction

As stated in Chapter One, Study I was conducted to test the reliability and discriminant validity of a newly developed measure of engagement. Specifically, this chapter discusses the procedures followed to construct and validate the newly developed measure of engagement. The results of factor analyses (exploratory and confirmatory), conducted to examine the dimensionality of the engagement construct, together with the results of reliability and discriminant validity analyses of the engagement scale amongst the nomologically related attitudinal measures of job satisfaction, organizational commitment, and job involvement are reported. Further, the results of the engagement common method bias, scale invariance (the associations between the respondents' demographics and their levels of engagement) are also reported. The key findings of Study I are discussed in the discussion section of this chapter.

5.2 Study I: Measurement Development

For the development of the engagement construct, the relationship between the latent variable (employee engagement) and its observed indicators (items) needs to be defined. In reflective measurement models, the latent variable is assumed to be the cause of the manifested indicators; any change in the value of the construct will result in a variation in its reflective indicators (Nunnally and Bernstein, 1994). Hence, the reflective indicators are expected to highly correlate and, therefore, report high internal consistency. However, the opposite direction is assumed for formative measurement models; changes in the observed indicators imply variations in the latent variable. Consequently, high correlations between the observed indicators are not expected to occur in formative measurement (Nunnally and Bernstein,

1994). For this study, employee engagement has been defined as a multidimensional construct consisting of components (e.g. passion, discretionary effort, absorption, and activation), see Chapter Two, that express different dimensions from which individuals may experience engagement (Macey and Schneider, 2008; Saks, 2006; Shuck and Wollard, 2010). Thus, the extent to which an individual experience each facet of the engagement construct will partially reflect a level of engagement; employee engagement is embedded in a cause and effect relationship where individuals' perceptions of all facets of the engagement construct will reflect their cumulative level of engagement. Thus, the causal relationship between employee engagement and its observed indicators (scale items) is assumed to be reflective for the purpose of this study.

Spector's (1992) procedures of constructing and validating a measurement scale were used, which begin with defining the construct. As Chapter Two identified, several commonalities were noted and should be incorporated into a specific and measurable definition of the construct; namely passionate, energetic, enthusiastic, persistent, and emotionally positive individuals. In addition, the cognitive, affective, and behavioural components needed to be addressed by the scale items. To that end, practices recommended by several scholars (e.g. Schwab, 1980) were followed to create an item pool. The purpose of this phase was to, systematically and comprehensively, sample all content potentially relevant to the engagement construct. Firstly, the literature highlighting the main measures of engagement within both the academic and consultant literature was reviewed (Chapter Three). Then, all items were sorted according to the themes they measure. Next, items that most likely fitted the dimensions of the proposed definition were selected. A set of items, derived from several scales, was formed, together with self-developed items, to address the content area of each dimension tapping the emotional, cognitive, and behavioural dimensions of employee

engagement (see Table 5.1). The advantage of using items taken from previously developed scales (e.g. Schaufeli' et al.'s 2002) is that the reliability and validity of those items have been tested in several research settings (Monette, Sullivan, and DeJong, 2011).

Table 5.1

The 27-Item Engagement Scale

Item	Dimension	Source
1. I am enthusiastic in my job	Enthusiasm	Rich et al.'s (2010; modified from Russell and Barrett's, 1999)
2. When I get up in the morning, I feel like going to work	Enthusiasm	Schaufeli et al.'s (2002)
3. I am proud of the work that I do	Pride	Schaufeli et al.'s (2002)
4. I speak highly of this organization to my friends	Pride	Robinson et al.'s (2004)
5. I feel positive about my job	Emotionally positive	Rich et al.'s (2010)
6. I deal with emotional problems very calmly	Emotionally positive	Maslach and Leiter's (1997)
7. I feel energetic at my work	Energy	Rich et al.'s (2010)
8. I can continue working for very long periods of time	Energy	Schaufeli et al.'s (2002)
9. I show a great deal of passion while performing tasks	Passion	Self-developed
10. At work, I am passionate about my job	Passion	Self-developed
11. My job inspires me.	Inspiration	Rich et al.'s (2010)
12. This organization inspires the very best in me in the way of job performance	Inspiration	Schaufeli et al.'s (2002)
13. At work, my mind is focused on my job	Attention	Rich et al.'s (2010)

Item	Dimension	Source
14. I spend a lot of time thinking about my work	Attention	Rothbard's (2001)
15. Performing my job is so absorbing that I forget about everything else	Absorption	May et al.'s (2004)
16. When I am working, I often lose track of time	Absorption	Rothbard's (2001)
17. I find the work I do full of meaning and purpose	Meaningfulness	Schaufeli et al.'s (2002)
18. I understand how my role relates to company goals and objectives	Meaningfulness	Towers and Perrin's (2003)
19. I am willing to put in a great deal of effort beyond what is normally expected	Discretionary effort	Towers and Perrin (2003)
20. I frequently make suggestions to improve the work of my department	Spirit of initiative	Towers and Perrin (2003)
21. I enjoy working towards achieving the organizational goals	Goal achievement	Self-developed
22. I do my best to solve problems that arise in my job	Problem solving	Self-developed
23. At work, I persist through challenges"	Persistence through challenges	Self-developed
24. I look for innovative ways to do my job efficiently	Innovativeness	Self-developed
25. I fulfil the assigned responsibilities and duties defined in my job description	Task performance	Self-developed
26. I perform the tasks that are expected to meet performance requirements	Task performance	Self-developed
27. I participate in activities that will influence my performance evaluation	Task performance	Self-developed

In evaluating several aspects of the emotional dimension (enthusiasm, pride, inspiration, passion, positive emotions, and energy), most items were adopted from existing engagement scales. Similarly, the items that evaluate the attention, absorption, and meaningfulness aspects of the cognitive dimension were adopted from existing engagement scales. The behavioural dimension was measured using self-developed items that assess the behavioural aspects of discretionary effort, goal-achievement, spirit of initiative, innovativeness, persistence, problem solving, and task performance.

Once the engagement construct was defined, the focus moved to design the actual rating scale. The scale was designed in a five-point Likert type scale for the response choices ranging as: “Never” (1), “Rarely” (2), “Sometimes” (3), “Very Often” (4), and “Always” (5). The choice of this scale was due to the nature of the engagement construct as it implies the meaning of durability. For example, Schaufeli et al. (2002) defined engagement as a “persistent positive affective-motivational state” (p. 74). Similarly, Macey and Schneider (2008) considered engagement as a constant state given the presence of job and organizational factors. Moreover, Macey and Schneider (2008) called for a measure that contains items assessing how often an employee practices certain engagement feelings in order to determine whether employee engagement has an aspect of durability or it is just transient in nature.

5.3 Method

5.3.1 Study I Participants

For generalization purposes, the targeted population comprised working individuals, regardless of their age, gender, occupation, experience, or location. The electronic version of the New Zealand Electoral Roll (2012) was obtained and a simple random sampling technique was used to select the participants. The sample size was determined by using the

following formula: $n = N / 1 + N(e)^2$ (n = Sample size, N = Total Population, e = Estimated Error, as the confidence level is 95%). Based on the sampling formula, the needed sample size was defined to be 400. Also, a large sample size has a direct effect on increasing the power levels of the findings and simultaneously reduces the chances of Type I error and the false negative rate (Type II error) to occur (Stevens, 1996). As a confirmatory factor analysis was employed to examine the factorial structure of the engagement construct among other attitudinal constructs (job satisfaction, job involvement, and organizational commitment), a general rule of thumb was also followed; 300 participants for factor analysis (Tabachnick and Fidell, 1996) or 50 participants for each factor (Pedhazur and Schmelkin, 1991). Considering all these rules of thumb, 400 participants, as derived from the sample size formula, met the minimal standard and were seen adequate to have acceptable levels of statistical significance of the findings. Taking a low percentage of potential response rate (10% or 15%) into consideration 2700 people were randomly selected from the electoral roll and sent questionnaires.

In total, 449 responses were received, giving a 16.6% response rate. As detailed in Table 5.2, 41.2 % of participants were males, while females formed 58.8 % of the sample. Professionals (individuals with advanced skills and higher qualifications) represented the highest percentage of participation by 37% ($n = 163$), while the lowest percentage of participation was found among Machinery Operators and Drivers with 3.9% ($n = 17$). Further, participants who belong to the “Educational Industry” represented the highest percentage of participation by 22.6% ($n = 98$), while the lowest percentage was observed for “Food Industry” employees with .7% ($n = 3$). The age of participants ranged from 22 to 78 years old ($M = 48$; $SD = 12$), while their tenure ranged from .8 to 50 years ($M = 9.29$; $SD = 9.52$), (see table 5.3).

Table 5.2

Descriptive Statistics: Gender, Occupation, and Industry Type of Participants

		Current Sample (N)	Current Sample (%)	NZ Actual (N)	NZ Actual (%)
Gender	Male	184	41.2	1163804	52.4
	Female	263	58.8	1057196	47.6
Occupation	Manager	72	16.3	410885	18.5
	Professional	163	37.0	477515	21.5
	Technicians & Trades Workers	58	13.2	275404	12.4
	Community & Personal Services Workers	19	4.3	197669	8.9
	Clerical & Administrative Workers	73	16.6	268741	12.1
	Sales Workers	19	4.3	210995	9.5
	Machinery Operators & Drivers	17	3.9	131039	5.9
	Laborers	20	4.5	250973	11.3
	Manufacturing	45	10.4	239868	10.8
Industry Type	Education	98	22.6	177680	8.0
	Electronics	10	2.3	17768	0.8
	Finance & Insurance Services	27	6.2	59967	2.7
	Construction	24	5.5	168796	7.6
	Media	5	1.2	15547	0.7
	Transport, Postal & Warehousing	17	3.9	88840	4.0
	Telecommunication	8	1.8	26652	1.2
	Hospitality	16	3.7	115492	5.2
	Health Care & Social Assistance	94	21.7	228763	10.3
	Public Administration and Safety	50	11.5	77735	3.5
	Real Estate Services	8	1.8	330929	14.9
	Agriculture, Horticulture & Forestry	7	1.6	146586	6.6
	Food	3	0.7	124376	5.6
	Energy	5	1.2	8884	0.4
	Retail Trade	17	3.9	393117	17.7

Table 5.3

Age and Tenure of Participants

	M	SD	Minimum	Maximum	Missing	N
Age	48.00	12.00	22	78	7	442
Tenure	9.29	9.52	.8	50	3	446

Note. Tenure is calculated in years.

To examine whether the properties (gender, occupation, and industry type) of the sample used in this research is significantly ($p < .05$) different from, or similar to, the actual proportions of the New Zealand workforce, chi square was conducted. The results showed that the sample was similar to the population in terms of participants' gender ($\chi^2 = 2.4319$, $p = .11$). However, the sample was found to be significantly different from the population in terms of occupation ($\chi^2 = 22.085$, $p < .05$) and industry type ($\chi^2 = 94.119$, $p < .05$). These significant values can be explained due to the fact that some components of the sample were over represented in relation to the NZ population as whole. For example, the sample distribution for “professionals”, “education”, and “Health Care & Social Assistance” were greater than those of the NZ workforce ($37.0 > 21.5$, $22.6 > 8$, $21.7 > 10.3$, respectively).

5.3.2 Study I Procedure

A postal survey was used to provide respondents more flexibility to reply at their pace and on their schedule (see Appendix B). In addition, it is seen effective when the goal is to reach far and different geographic areas with lower cost than interviewing people personally (Denscombe, 2007).

In carrying out the research, specific procedures were followed. Firstly, permission from the Research Ethics Committee at AUT was sought, as data collection did not take place until the ethical approval had been obtained (see Appendix C). The voluntary participation of participants was emphasized clearly in the survey cover letter. Further, the confidentiality of the participating individuals and organizations was emphasized to be maintained and protected in all times. Once ethics permission to conduct the research was granted, the researcher prepared the survey questionnaire to be distributed. The second step was posting the questionnaire booklets to the selected participants' home addresses. For that purpose, the electronic version of New Zealand Electoral Roll was obtained to randomly select the

participants. The booklet included the questionnaire and a letter (information sheet) explaining the research objectives, inviting them to voluntarily take part in the study, and emphasizing the importance of their participation. Further, the letter included a clear statement promising the confidentiality of the respondents (see Appendix D). In addition, the respondents received a freepost reply envelope to return the questionnaire after completion. For tracking the surveys, each returned booklet was numbered and compared according to the matching numbers of the mailing list. Three weeks after survey administration, a reminder letter with a replacement questionnaire was sent to those who had not returned the survey, encouraging them to participate and highlighting the significance of their participation. Participants were also asked to express their willingness to participate in the second phase of data collection. Volunteers were asked to provide their email address so they could receive another invitation explaining the purpose of collecting data for phase II and asking them to complete a secured online questionnaire. Since the anonymity of those who provided their emails would be revealed, they were asked to fill in the provided consent form (see Appendix E). Once the surveys had been received, the data were entered and analysed using SPSS version 22. The items with an acceptable level of reliability and validity were selected to comprise the final version of the engagement scale. Following this, the second phase of data collection took place.

The initial steps for preparing the raw data for analyses included screening for missing data and recoding negatively worded items. Systematic missing data (values that are missing in a non-random and methodological way) is a serious issue that contaminates the interpretation of the results and how well the sample represents its population (Tabachnick and Fidell, 2007). However, with a low percentage of randomly missing data (values are missing in an unplanned method and in a random pattern throughout the data set), several procedures of

handling missing data can be performed (Mertler and Vannatta, 2005). To this end, the SPSS missing value analysis was run and the data were found at random missing with $p = .87$ ($p > .05$ indicates “random missing”, Mertler and Vannatta, 2005). Further, the analysis revealed that a small percentage of data were found missing with 3.8% of missing data (less than 15%, the problem level indicated by Leong and Austin, 2006). Thus, the decision was made to replace the missing data with the mean of the available data. This approach is considered appropriate when there are few missing values and protecting the sample size is important (Mertler and Vannatta, 2005). Data screening also revealed that 46 participants preferred not to respond to some demographic questions about their gender, age, and tenure. The decision was made to retain those cases since examining the participants’ demographic characteristics was not a central objective of the present study.

Some of the scales used in Study I contained negatively worded items and they were reverse recoded using the recoding option in SPSS. Specifically, nine items of Allen and Meyer’s (1990) commitment scale were reversed with higher scores indicating low levels of organizational commitment. Similarly, one item (Most things in my life are more important than my work) from Lodahl and Kejner’s (1965) job involvement scale was reversed so that higher scores indicate low levels of job involvement. In addition, the responses for occupation were coded according to the Australian and New Zealand Standard Classification of Occupation (Australian Bureau of Statistics, ANZSCO, 2013). For example, the occupations: case manager, assistant manager, project manager were all categorized under “Manager”, whereas the occupation “Professionals” includes university professors, school teachers, nurses, engineers, and other occupations of bachelor degree holders with advanced skills according to the Australian Bureau of Statistics (ANZSCO, 2013).

The internal consistency reliability was calculated by testing the Cronbach's coefficient alpha (Nunnally and Bernstein, 1994) to assess the extent of commonality and uniqueness of the engagement scale items. Further, item analysis and exploratory factor analysis (EFA) was conducted to examine the homogeneity and factorial structure of the engagement scale from the other measures in the questionnaire. In order to explicate and identify the uniqueness of the engagement construct, the engagement scale should show acceptable levels of discriminant validity when compared to other attitudinal constructs. Thus, measures of job involvement, job satisfaction and affective commitment, as being conceptually associated with engagement (Macey and Schneider, 2008; Maslach, 2011; Newman and Harrison, 2008; Pugh and Dietz, 2008; Vance, 2006), were included in the questionnaire to collect evidence of discriminant validity. Typically, Pearson Correlation was employed to understand the commonalities among those measures as the relatedness between them is theoretically expected to be moderate. Further, the factorial distinctiveness of the engagement construct among those attitudinal constructs was examined by conducting an exploratory factor analysis (EFA).

5.3.3 Study I Measures

Employee Engagement Scale: following the procedure outlined above, a 27-item scale was developed to measure the dimensions of the engagement construct (emotional, cognitive, and behavioural). In study I, the final version of the engagement scale consisted of 20 items, with a coefficient alpha = .92.

Job Satisfaction: Employee job satisfaction has been examined for decades and numerous instruments have been developed for a specific workforce or for jobs in general. For the purpose of selecting a comprehensive, reliable, and validated instrument, the Job Satisfaction Scale (Warr, Cook, and Wall, 1979) was selected as it is a widely used scale and its reliability

and validity have been extensively reported in the satisfaction literature and across several industries and occupational groups. It is multidimensional scale including fifteen items assessing the intrinsic and extrinsic facets of job satisfaction, such as the amount of pay, supervision, promotion, job security, co-workers, job variety, recognition for good work, freedom, amount of responsibility, physical conditions, and workload. The response format is a 7-point Likert scale ranging from very dissatisfied (1) to very satisfied (7). In the current study, the coefficient alpha for the 15-item satisfaction scale was $\alpha = .90$.

Organizational Commitment: As some researchers (e.g. Macey and Schneider, 2008; Vance, 2006) tend to conceptually link organizational commitment, especially affective commitment, to employee engagement, the 24-item Commitment Scale (Allen and Meyer, 1990) was selected as the scale consists of eight items assessing affective commitment, alongside sixteen items measuring continuance and normative commitment. Further, the scale has been widely used in the commitment literature and reported satisfactory reliability. Example items are “I would be very happy to spend the rest of my career with this organization”, “It would be very hard for me to leave my organization right now, even if I wanted to”, and “Jumping from organization to organization does not seem at all unethical to me (R)”. The response format is a 7-point Likert scale ranging from “strongly disagree” (1) to “strongly agree” (7). In the present research, the commitment scale reported a good level of internal consistency with $\alpha = .82$.

Job Involvement: Lodahl and Kejner’s (1965) short version of job involvement scale was used due to the reported credibility, reliability, and validity of the scale. The scale consists of six items (e.g. “The most important things that happen to me involve my work.”, “I’m really a perfectionist about my work.”, and “live, eat, and breathe my job”). The response format is a 5-point Likert scale ranging from “strongly disagree” (1) to “strongly agree” (5).

In the current research, the 6-item job involvement scale reported a low reliability with $\alpha = .59$. With item six “Most things in my life are more important than my job (R)” being deleted, coefficient alpha increased to .78.

5.4 Study I Results

The result of an exploratory factor analysis (EFA) is reported to examine the dimensionality of the engagement items, together with the results of reliability and discriminant validity analyses of the engagement scale with the nomologically related attitudinal measures of job satisfaction, organizational commitment, and job involvement. To investigate the engagement scale invariance, the associations between the respondents’ demographics and their levels of engagement are also reported.

5.4.1 Exploratory Factor Analysis (EFA)

To conduct the EFA, a principal axis factor analysis with oblique rotation was performed. Principal axis extraction is preferable when the objective is to consider the relationships among the factors; the factors are extracted only from the shared variance, but not from the all available variance (unique, shared, and error variance). This can be considered as an advantage for principal axis over other extraction approaches in cleaning out the error variance prior to extracting the underlying components (Spicer, 2005). Further, the factor analysis was performed using the correlation matrix. When the scale consists of items assessing variables that are not meaningfully equivalent (items derived from different scales), the factor analysis should be computed by using the correlation matrix, whilst the covariance matrix is used when the variables are meaningfully comparable (items derived from similar scales), (Fung, 1995).

The oblique rotation was used to examine the dimensionality of the engagement scale items and try to reduce the number of items to those that explain the common underlying components (factors) of the construct. The oblique rotation was used as the engagement construct consists of subscales that are theoretically expected to slightly overlap but still be meaningfully distinct. For instance, the items that assess the “discretionary effort” and “task performance” components are expected to slightly overlap due to their behavioural nature. The items that evaluate the “absorption” and “energy and activation” dimensions are also expected to correlate as individuals display high levels of energy while being immersed and absorbed in their activities. Further, an oblique rotation approach is recommended when the outcome of EFA is used to compute confirmatory factor analysis as the latter allows the latent factors to interrelate. Thus, using an oblique rotation method is as necessary to maintain the conceptual consistency between EFA and CFA (Matsunaga, 2010).

In defining the minimum item loadings, a general rule of thumb has been set to consider .3 as a minimum loading on the basis of such a variable loading would account for 10% of the variance within the factor (Spicer, 2005). However, some researchers (e.g. Hair, Black, Babin, and Anderson, 2010; Stevens, 2009) have criticized this practice as it ignores the influence of the sample size. For instance, Hair et al. (2010) suggested that a factor loading above .3 is acceptable; greater than .4 is more important, whereas greater than .5 is very significant. Similarly, Stevens (2009) stated that a variable should at least indicate 15% of the shared variance with the factor, hence, factor loadings greater than .4 are worthy of interpretation. Drawing on these practices, the decision was made to only retain the factor loadings that are greater than .4.

As the structure matrix shows, (see Table 5.5), some items cross-load on more than one factor with loading above .4. For example, the item “At work, I am passionate about my job” cross-

loaded on factors 1, 4, and 5 with loading values of .81, .46, and .40 respectively. Similarly, the item “I am proud of the work that I do” cross-loaded on factors 1, 4, and 5 with loading values of .68, .43, and .42 respectively. Further, Table 5.4 shows low to moderate correlations found between the factors that assess specific components of the engagement construct. For example, the inter-correlations between Factor 1 and the other five factors ranged from -.26 to .48. Similarly, Factor 5 highly inter-correlated with the other five factors (ranged from -.25 to .50). Given that some items cross-loaded on more than one factor and drawing on the adequate inter-correlations found between the factors, performing the rotated factor solution is justified.

Table 5. 4
Factor Correlation Matrix of the Engagement Scale

	1	2	3	4	5	6
Factor 1	-	-	-	-	-	-
Factor 2	.32	-	-	-	-	-
Factor 3	.43	.26	-	-	-	-
Factor 4	.48	.14	.25	-	-	-
Factor 5	.41	.50	.31	.25	-	-
Factor 6	-.26	-.27	-.27	-.24	-.28	-

Note. Principal axis extraction.

Another method for examining the underlying inter-correlations between the factors is to test the Kaiser-Meyer-Olkin (KMO) of the data. High values of KMO indicate that the observed correlations are likely to be explained by common factors. A value in the .90s is considered “marvellous” whereas a value less than .5 is regarded unacceptable for factor analysis (Hair et al., 2010); in the present study, The KMO of sampling adequacy was .92.

Table 5.5
The Structure Matrix of the 27-Item Engagement Scale

	Factor					
	1	2	3	4	5	6
At work, I am passionate about my job	.81	.29	.39	.46	.40	-.43
I feel positive about my job	.79	.24	.36	.62	.34	-.15
I am enthusiastic in my job	.78	.28	.39	.47	.39	-.18
I feel energetic at my work	.75	.33	.37	.44	.35	-.17
I show a great deal of passion while performing tasks	.74	.33	.36	.34	.38	-.47
My job inspires me	.73	.19	.50	.56	.32	-.29
When I get up in the morning, I feel I like going to work	.70	.19	.37	.42	.28	-.10
I am proud of the work that I do	.68	.33	.31	.43	.42	-.38
I find the work I do full of meaning and purpose	.68	.18	.36	.42	.31	-.30
At work, my mind is focused on my job	.50	.31	.41	.13	.38	-.15
I can continue working for very long periods at a time	.47	.32	.42	.22	.34	-.25
I do my best to solve problems that arise in my job	.33	.83	.27	.28	.46	-.27
At work, I persist through challenges	.26	.78	.30	.16	.51	-.30
I deal with emotional problems very calmly	.35	.35	.14	.11	.26	-.08
Performing my job is so absorbing that I forget about everything else	.34	.19	.82	.18	.26	-.20
When I am working, I often lose track of time	.31	.19	.78	.22	.20	-.13
I spend a lot of time thinking about my work	.35	.24	.56	.20	.26	-.34
This organization really inspires the very best in me in the way of job performance	.52	.15	.32	.80	.26	-.16
I enjoy working toward achieving the organizational objectives	.48	.28	.33	.74	.37	-.43
I speak highly of this organization to my friends	.48	.15	.19	.74	.23	-.16
I understand how my role relates to company goals and objectives	.34	.26	.25	.61	.29	-.27
I perform the tasks that are expected to meet performance requirements	.31	.41	.23	.17	.86	-.17
I fulfil the assigned responsibilities and duties defined in my job description	.34	.46	.21	.19	.85	-.18
I participate in activities that will influence my performance evaluation	.30	.27	.26	.32	.51	-.34
I look for innovative ways to do my job efficiently	.38	.61	.34	.20	.42	-.62
I am willing to put in a great deal of effort beyond what is normally expected	.48	.39	.52	.31	.48	-.60
I frequently make suggestions to improve the work of my department	.20	.18	.17	.22	.19	-.41

Note. N = 449; Principal axis extraction; Item cross-loadings above .4 are indicated in boldface.

Another approach of examining the appropriateness of the factorial model is by examining the Bartlett test of sphericity. This test provides the statistical significance of the inter-correlations between the items. The results revealed that the Bartlett's test of sphericity was significant at $p < .001$ (Tabachnick and Fidell, 2007). These findings indicate that the data are well-suited for conducting factor analysis and producing representative factors. The commonalities between the scale items are displayed in Appendix F.

The pattern matrix (see Table 5.6) shows that the initial 27 items were reduced to 24 items; 3 items failed to load greater than 0.4, hence, they were excluded from the factor structure. The remaining 24 items were extracted in six factors with Eigenvalue greater than 1, accounting for 55.51% of the total variance.

The retained 24 items of the engagement scale were subjected to a second factor analysis (principal axis with direct oblimin rotation). Five factors were extracted with Eigenvalue greater than 1, accounting for 57.35% of the variance. As Table 5.7 displays, 2 items failed to load greater than 0.4 and were excluded from the factor structure.

The retained 22 items of the engagement scale were subjected to a final factor analysis (principal axis with direct oblimin rotation). Five factors were extracted with Eigenvalues greater than 1, accounting for 59.01% of the variance (See Table 5.8). The items significantly loaded above .4 on their respected factors except one item ("At work, my mind is focused on my job") which loaded .394. The decision was made to retain the item as its loading is close to the .4 cutoff.

Table 5.6

The Pattern Matrix: Direct Oblimin Rotated Factor Loading for the 27-item Engagement Scale

	Factor					
	1	2	3	4	5	6
At work, I am passionate about my job	.72	-.03	-.00	.06	.04	-.22
I am enthusiastic in my job	.68	.01	.05	.13	.06	.06
I show a great deal of passion while performing tasks	.67	.03	-.00	-.05	.01	-.30
I feel energetic at my work	.67	.10	.03	.11	.00	.07
I feel positive about my job	.64	-.00	.02	.32	.01	.10
When I get up in the morning, I feel I like going to work	.63	-.02	.09	.12	.00	.11
I find the work I do full of meaning and purpose	.59	-.09	.05	.10	.04	-.11
I am proud of the work that I do	.55	.04	-.04	.09	.11	-.18
My job inspires me	.53	-.09	.21	.25	.00	-.05
At work, my mind is focused on my job	.40	.07	.21	-.15	.16	.04
I deal with emotional problems very calmly	.31	.26	-.04	-.05	.04	.06
I can continue working for very long periods at a time	.31	.11	.22	-.03	.07	-.07
I do my best to solve problems that arise in my job	-.03	.79	.02	.16	.02	-.00
At work, I persist through challenges	-.09	.69	.09	.03	.14	-.06
Performing my job is so absorbing that I forget about everything else	-.00	-.03	.84	-.02	.02	.01
When I am working, I often lose track of time	-.04	.03	.81	.06	-.05	.08
I spend a lot of time thinking about my work	.09	.04	.46	-.01	.00	-.18
This organization really inspires the very best in me in the way of job performance	.15	-.00	.08	.72	.00	.07
I speak highly of this organization to my friends	.19	.02	-.05	.67	.00	.04
I enjoy working toward achieving the organizational objectives	.05	.05	.04	.62	.09	-.21
I understand how my role relates to company goals and objectives	-.03	.13	.05	.56	.06	-.07
I perform the tasks that are expected to meet performance requirements	-.02	-.00	-.01	-.03	.91	.06
I fulfil the assigned responsibilities and duties defined in my job description	.01	.05	-.05	-.01	.86	.06
I participate in activities that will influence my performance evaluation	-.01	-.02	.04	.17	.42	-.17
I look for innovative ways to do my job efficiently	.11	.43	.05	-.05	.01	-.46
I am willing to put in a great deal of effort beyond what is normally expected	.16	.07	.26	.01	.17	-.41
I frequently make suggestions to improve the work of my department	.02	.04	.02	.11	.01	-.35

Note. N = 449; Item loadings above .4 are indicated in boldface.

Table 5.7

The Pattern Matrix: Direct Oblimin Rotated Factor Loading for the 24-item Engagement Scale

	Factor				
	1	2	3	4	5
At work, I am passionate about my job	.80	.11	-.01	.02	-.01
I show a great deal of passion while performing tasks	.76	.22	-.01	-.08	-.05
I am enthusiastic in my job	.72	-.05	.02	.07	.08
I feel energetic at my work	.67	.00	-.00	.08	.04
I feel positive about my job	.65	-.11	-.01	.28	.04
I find the work I do full of meaning and purpose	.65	-.03	.04	.06	.00
When I get up in the morning, I feel I like going to work	.64	-.13	.06	.08	.04
I am proud of the work that I do	.63	.14	-.06	.06	.07
My job inspires me	.57	-.08	.20	.21	-.01
At work, my mind is focused on my job	.40	.03	.19	-.15	.18
I look for innovative ways to do my job efficiently	.21	.67	.05	-.03	-.02
At work, I persist through challenges	-.09	.65	.06	.06	.19
I do my best to solve problems that arise in my job	-.02	.62	.00	.17	.13
I am willing to put in a great deal of effort beyond what is normally expected	.26	.33	.24	.03	.08
Performing my job is so absorbing that I forget about everything else	-.02	-.03	.88	-.02	.02
When I am working, I often lose track of time	-.05	-.02	.77	.07	-.02
I spend a lot of time thinking about my work	.13	.16	.45	-.00	-.02
This organization really inspires the very best in me in the way of job performance	.11	-.09	.08	.75	.00
I speak highly of this organization to my friends	.17	-.04	-.05	.68	-.00
I enjoy working toward achieving the organizational objectives	.10	.17	.04	.62	.02
I understand how my role relates to company goals and objectives	-.03	.14	.05	.58	.04
I perform the tasks that are expected to meet performance requirements	-.00	-.02	-.00	-.03	.90
I fulfil the assigned responsibilities and duties defined in my job description	.03	.04	-.05	-.01	.84
I participate in activities that will influence my performance evaluation	.03	.10	.06	.18	.34

Note. N = 449; Item loadings above .4 are indicated in boldface.

However, the Scree Plot in Figure 5.1 indicates that a three-factor solution can be tenable.

Thus, an additional exploratory factor analysis was conducted by setting the number of

factors to three. Three factors were extracted, accounting for 46.06% of the variance. One item representing the “goal-identification” dimension (I enjoy working toward achieving the organizational objectives” significantly loaded on the “positive emotions” factor (.61, see Appendix G). Taking the total variance percentage (close to or higher than 50-60%; Hair et al., 2006; Pett, Lackey, and Sullivan, 2003), latent root (eigenvalue greater than 1), and items reflection of the hypothesized patterns into consideration, the five-factor solution was seen to best reflect the hypothesized themes (positive emotions, discretionary effort, absorption, goal-identification, and task performance) and prior research on the dimensionality of the engagement construct.

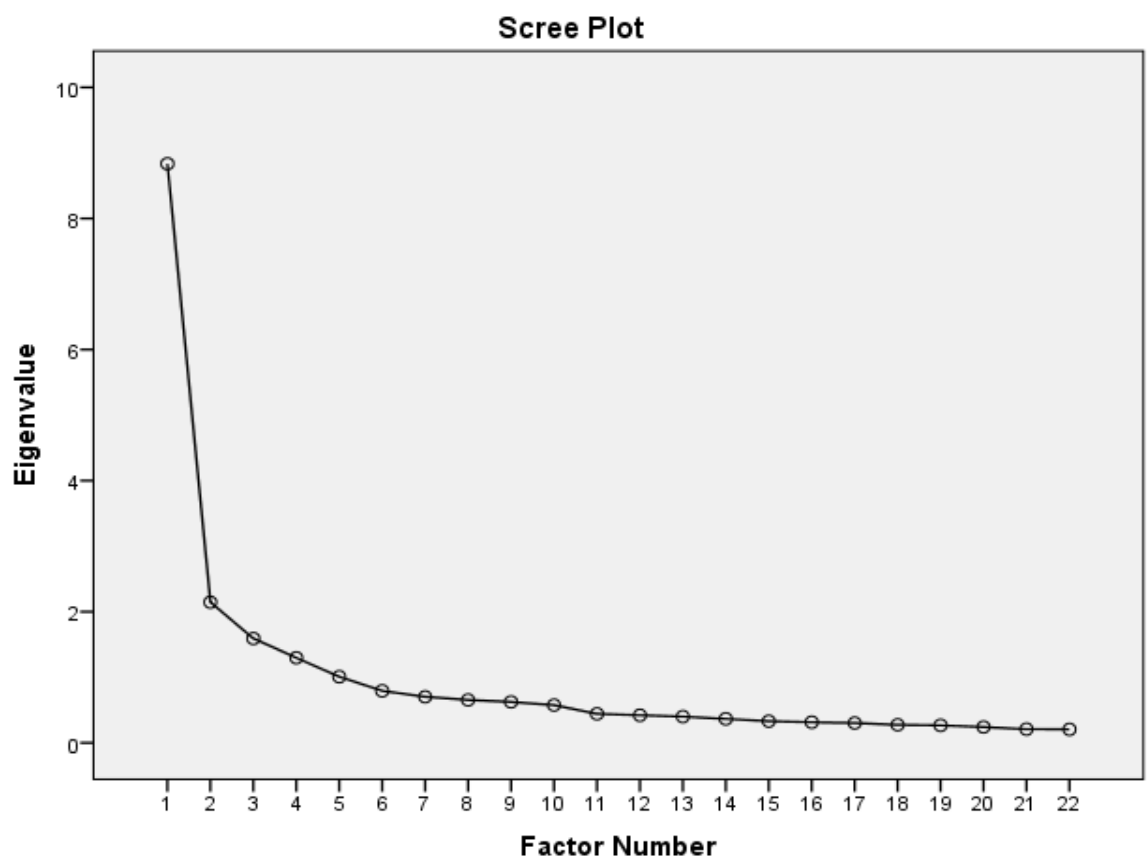


Figure 5.1 The Scree Plot for the 22 -Item Engagement Scale

Table 5.8

The Pattern Matrix: Direct Oblimin Rotated Factor Loading for the 22-item Engagement Scale

	Factor				
	1	2	3	4	5
At work, I am passionate about my job	.81	.09	-.01	.02	-.01
I show a great deal of passion while performing tasks	.79	.20	-.01	-.09	-.06
I am enthusiastic in my job	.69	-.05	.02	.09	.10
I feel energetic at my work	.66	.01	.00	.09	.04
I find the work I do full of meaning and purpose	.64	-.03	.05	.07	.00
I am proud of the work that I do	.63	.13	-.06	.06	.07
I feel positive about my job	.62	-.11	-.00	.30	.06
When I get up in the morning, I feel I like going to work	.61	-.13	.06	.09	.05
My job inspires me	.56	-.07	.20	.22	-.01
At work, my mind is focused on my job	.39	.03	.20	-.14	.18
At work, I persist through challenges	-.07	.68	.07	.06	.17
I do my best to solve problems that arise in my job	-.02	.67	.01	.19	.11
I look for innovative ways to do my job efficiently	.25	.61	.06	-.03	-.01
Performing my job is so absorbing that I forget about everything else	-.01	-.02	.87	-.03	.01
When I am working, I often lose track of time	-.06	-.00	.78	.07	-.02
I spend a lot of time thinking about my work	.14	.13	.43	.00	-.01
This organization really inspires the very best in me in the way of job performance	.08	-.08	.08	.76	.00
I speak highly of this organization to my friends	.15	-.03	-.05	.68	-.01
I enjoy working toward achieving the organizational objectives	.11	.15	.03	.62	.03
I understand how my role relates to company goals and objectives	-.04	.15	.05	.59	.04
I perform the tasks that are expected to meet performance requirements	-.00	.01	-.00	-.00	.86
I fulfil the assigned responsibilities and duties defined in my job description	.02	.05	-.04	.00	.841
% of Variance	38.3	8.1	5.4	3.9	3.0

Note. N = 449; Item loadings above .4 are indicated in boldface.

5.4.2 Engagement Sub-Factors

Factor 1 consists of ten items assessing passion, enthusiasm, positive affect, energy, inspiration, meaningfulness, pride, and attention. These themes reflect the “positive emotions and activation” engaged employee have towards their jobs. The theme “discretionary effort” emerged in a single factor (Factor 2) consisting of three items. This factor aligned with the notion that engaged employees strive to reach the extra mile of performance in responding to the actual performance-related activities and/or to adapt with the organization’s anticipated challenges and threats (Macey and Schneider, 2008; Newman and Harrison, 2008; Saks, 2006). Factor 3 consists of three items representing the “absorption” component of engagement. The “absorption” dimension reflects the individuals’ harnessing of themselves (Kahn, 1990) and the high levels of attention they show during task performance; engaged employees are characterized by being psychologically present and remain focused during distracting stimuli (Kahn, 1990; Schaufeli et al. 2002). Factor 4 consists of four items representing individuals’ “identification” as they are aware of the purpose of their role and how their performance is linked to the achievement of the organizational goals. Factor 5 consists of two items assessing “task performance”. This factor is in alignment with Newman and Harrison’s (2008) argument that engaged employees should not ignore daily tasks while displaying a discretionary effort towards accomplishing the organizational goals and solving challenging tasks. Although the general rule of thumb defines the minimum number of significant items representing a single factor to three, discarding the two items assessing “task performance” may cause a problem of under-identification of factors. Thus, a two-item rule can be referred to as long as the factor significantly correlates with some other factors (Hair et al., 2006). This is the case with the “task performance” factor in the present study.

These results revealed that Factor 1 (positive emotions and activation) is consistent with Schaufeli et al.'s (2002) "dedication" and vigor components that consist of items representing energy, enthusiasm, pride, meaningfulness, and inspiration. Further, the written items assessing passion (e.g. I show a great deal of passion while performing task") were extracted in Factor 1. This supports the definition of engagement that engaged individuals show a great level of passion while performing their duties and striving towards achieving the organizational goals (Macey and Schneider, 2008, Zigarmi et al., 2009). These results aligned with Sonnentag's (2003) and Christian and Slaughter's (2007) findings that Schaufeli et al.'s (2002) three factors (vigor, absorption, and dedication) of engagement are strongly interrelated. However, the "absorption" component was extracted as a distinct factor (Factor 3) consisting of three items. This supports Schaufeli et al.'s (2002) findings that absorption is different from vigor although they are conceptually expected to inter-correlate. Further, the findings show that the multi-factor structure is superior to the unidimensional conceptualization of employee engagement. The results of the current research also support the arguments that employee engagement connotes behavioural components (Macey and Schneider, 2008; Newman and Harrison, 2008). Specifically, the written items measuring "discretionary effort" (Factor 2) and "task performance" (Factor 5) indicate additional dimensions to be considered when measuring employee engagement. Further, Factor 4 (identification) was found as an additional component of the engagement construct based on the notion that engaged employees show great awareness of their role performance and the achievement of the organizational objectives. The extracted 5 factors provide empirical evidence showing that employee engagement is a multidimensional construct and it consists of extra components, in addition to those proposed in the engagement literature (e.g. Schaufeli et al.'s, 2002, three factors).

5.4.3 Confirmatory Factor Analysis (CFA)

Drawing on the results obtained from the EFA, the dimensionality of the engagement scale was examined by using CFA. Specifically, CFAs were conducted on the 22 retained items of the engagement scale to examine whether the items best fit a five-factor model as revealed by the EFA. To assess whether the models indicate a good fit to the data, several clusters of fit indices were used. Although the chi-square reflects the “exact fit index” and it is easy to interpret, it is influenced by the sample size; the larger the sample size, the more likely the chi-square value to be significant (the model is dissonant from the sample actual covariance), (Russel, 2002). To address the “exact fit” issue with large samples, researchers (e.g. Hu and Bentler, 1999; Kline, 2005; Schumacker and Lomax, 2004) suggest alternative fit indices to examine the approximate model fit. The relative chi-square (the chi-square divided by the degree of freedom; X^2/df) is suggested to indicate a good fit when its value does not exceed the 5 cut off point (Schumacker and Lomax, 2004). The root mean square error of approximation (RMSEA, Steiger, 1990) assesses how approximately the model fits the data. Marsh, Hau, and Wen (2004) recommended that a RMSEA value lower than .08 indicates a reasonable good fit, while Hu and Bentler (1999) suggested a more conventional cutoff with RMSEA is .06 or lower. Byrne (2009) recommended that RMSEA less than .05 indicates a good fit, less than .08 is reasonable; whilst a value between .08 to .1 indicates a mediocre fit. Another index of fit is the “comparative fit index” (CFI, Bentler, 1990) which indicates the “incremental fit index” of the model (the extent to what the model accounts for the variance). A CFI value of .90 (Russel, 2002) or .95 (Hu and Bentler, 1999) is acceptable. Further, the “adjusted goodness of fit index” (AGFI, close to 1) indicates a good model fit (Mulaik, James, van Alstein, Bennett, Lind, and Stilwell, 1989).

Drawing on the results of the EFA, CFA was computed on the 22 retained items (representing 5 factors) of the engagement scale. The analysis revealed that there were areas of discrepancy where two items strongly correlated with several other items. Specifically, strong residual correlations were found between the items “emotions 10” (“At work, my mind is focused on my job”) and “absorption 3” (“I spend a lot of time thinking about my work”), and several other items. Drawing on these large overlaps, the decision was made to delete these items. Further, the modification index was examined to modify the large covariance found among items within the same factor; two items from the “emotions and activation” factor and two items from the “identification” factor were covaried due to their large correlation residuals. The remaining 20 items were analyzed in a first order five-factor path diagram (see Figure 5.2) and the results showed a good model fit to the data (see Table 5.9). However, the model revealed that low correlations were found between some factors (e.g. .23 between task performance and absorption, .30 between task performance and identification, and .33 between absorption and identification). Although these factors are not expected to completely overlap and highly correlate, a second order five-factor model was tested to examine whether the factors considerably interrelate to engagement. The second order five-factor structure displayed a reasonable fit to the data, closely similar to the first order five-factor model. As Table 5.9 shows, the RMSEA was .07 (reasonable, below Byrne’s, 2009, .8 cutoff), the CFI was .92 (above Russel’s, 2002, .9 standard), the GFI was .87 (close to 1, Kline, 2005), and the PCFI was .80 (equal to Mulaik et al.’s, 1989, .8 cutoff). As displayed in Figure 5.2, the factors displayed moderate to high interrelations between the subscales and engagement (ranging from .53 to .82).

Table 5. 9
Confirmatory Factor Analysis of the Engagement Scale: Mode Fit Indices

Model Tested	CMIN/df	RMSEA	Confidence Interval (90%)	CFI	AGFI	No. of Items
1 st order 5-factor	2.84	.06	.06 to .08	.94	.87	20
2 nd order 5-factor	3.46	.07	.05 to .07	.92	.84	20

Note. N = 449. CMIN/df = adjusted chi-square; RMSEA = root mean square error of approximation; CFI = comparative fit index; AGFI = adjusted goodness of fit index.

Drawing on the good fit indices to the data, the significant item loadings on their respective factors (ranging from .57 to .92), and the moderate correlations found between the subscales and engagement, the second order five-factor model provides empirical evidence supporting the theoretical conceptualization that employee engagement is a multidimensional construct consisting of different but related subscales. Further, these findings add to the engagement literature by providing empirical evidence that “task performance” (consistent with Newman and Harrison’s, 2008, argument), discretionary effort (consistent with Macey and Schneider’s, 2008, argument), and “identification” are sound components of the employee engagement construct. Thus, the final version of the engagement scale consists of 20 items assessing the “emotion and activation”, “discretionary effort”, “absorption”, “identification”, and “task performance” dimensions of the engagement construct.

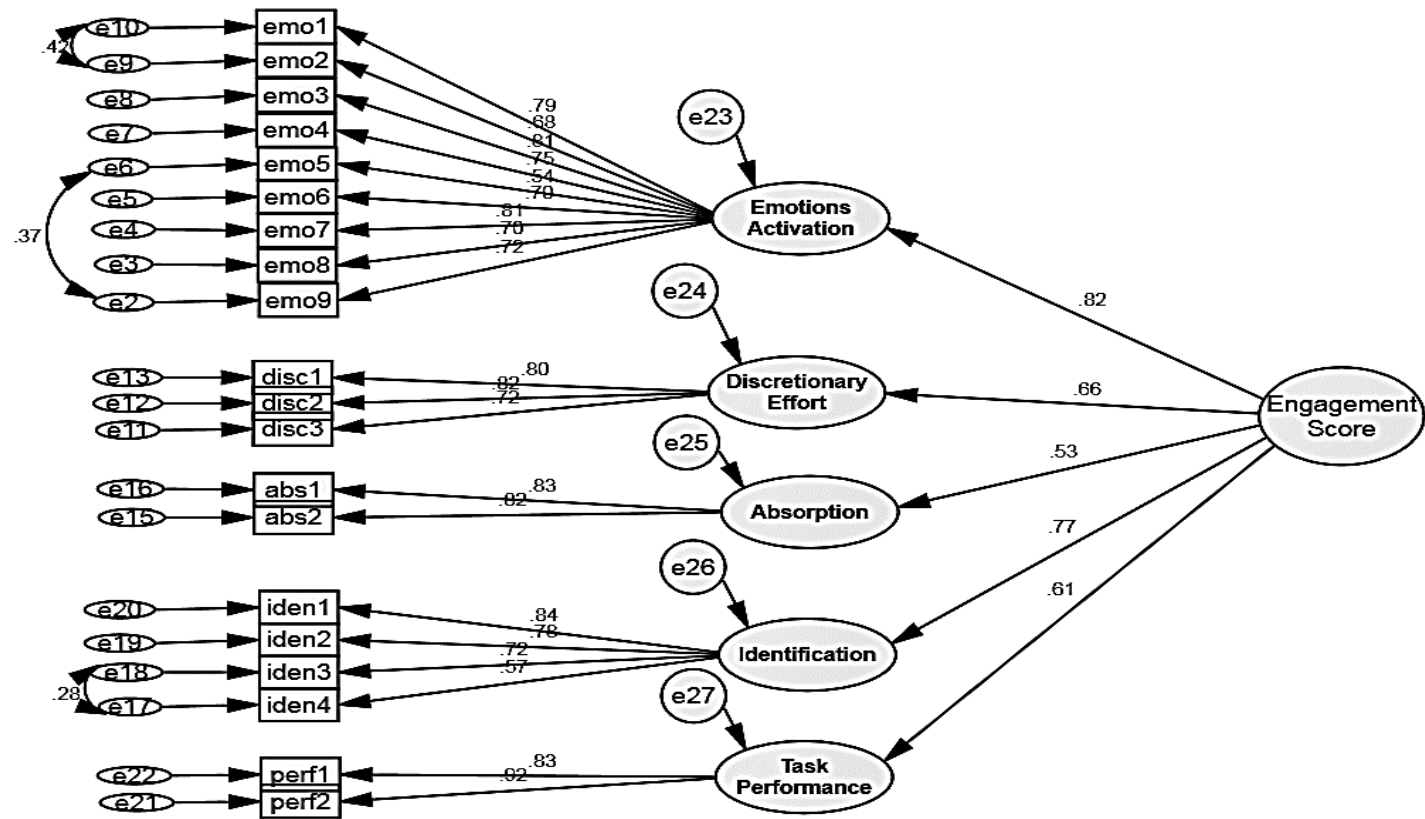


Figure 5.2 Engagement Second-Order Factor Model

5.4.4 Internal Consistency

Once the final set of the engagement scale items was extracted from the factor analyses (exploratory and confirmatory), item analysis was conducted for the purpose of examining the internal consistency of the engagement scale.

To this end, coefficient alphas for the overall engagement scale, individual scale items, and subscales were calculated. According to Nunnally and Bernstein (1994) and Sekaran (2007), less than .6 of Cronbach alpha reports low reliability, alpha within the .7 value indicates acceptable reliability, and the scale is said to indicate a good reliability when the coefficient alpha is above .8.

In reporting the coefficient alpha for the engagement subscales, there is some disagreement regarding the appropriateness of assessing the reliability of a two-item subscale (Eisinga, Grotenhuis, and Pelzer, 2013). For example, several researches (e.g. Cuijpers, Smits, Donker, ten Have, and de Graaf, 2009; Löwe, Kroenke, and Gräfe, 2005; Young, Jeganathan, Houtzager, Di Guilmi, and Purnomo, 2009) reported the coefficient alpha for their two-item scales. Still, others (e.g. Sainfort and Booske 2000; Verhoef, 2003; O'Brien, Buikstra, and Hegney, 2008) argued that coefficient alpha is not appropriate for testing the reliability of two-item measures. Drawing on the classical test theory, the observed score is equal to the sum of measurement error and the item's true score (Eisinga et al. 2013). This means that the error value is expected to be zero. In the case of a two-item measure, the expected values of the error vary across the two items, whereas the true-score variance is constant over items. For reporting the internal consistency of the newly developed engagement scale, only the coefficient alphas of the subscales (Emotions and Activation, Discretionary Effort, and Identification) that comprise more than two items are reported. However, the confirmatory factor analysis (see section 5.4.3) revealed moderate to high

interrelations found between the subscales and engagement (ranging from .53 to .82). This means that testing the coefficient alpha for overall 20-item scale is still appropriate.

Table 5.10 shows that the coefficient alphas for the three subscales were good (ranging from .80 to .92). The coefficient alpha for the overall 20-item engagement scale was $\alpha = .92$, which indicates a strong internal consistency between the scale items. The mean, standard deviation, and the corrected item-total correlation are presented in Table 5.10.

Table 5.10

Coefficient Alpha, Mean, and Standard Deviation for the Engagement Subscales (Phase I)

Engagement Variables	Alpha	M	SD	N of Items
Emotions & Activation	.92	3.89	.66	9
Discretionary Effort	.80	4.32	.56	3
Absorption	-	3.27	.84	2
Identification	.82	3.73	.77	4
Task Performance	-	4.50	.58	2
20-Item Engagement	.92	3.93	.52	20

Note. N of participants = 449; Items scored on a five-point Likert scale from 1 (never) to 5 (always).

5.4.5 Normality

From a statistical perspective, departures from normality can diminish the observed correlations and, thus, distort the factor solution (Leong and Austin, 2006). However, there has been an unresolved debate within the statistical literature about how best to define a clear criterion for verifying the normal distribution of scales. One widely used procedure is to set boundaries for the skewness value. By dividing the skewness statistic by the skewness standard error, the z value should be below 1.96 ($p > .05$), hence, a reasonable and acceptable level of normality can be assumed for the sample (Leong and Austin, 2006). A more

conservative practice is to apply the +1 to -1 range; skewness and kurtosis values between +1 and -1 indicate a normally distributed sample (Mertler and Vannatta, 2005). However, Field (2013) and Micceri (1989) stated that skewness can be linked to the effect of the sample size; the skewness standard error is directly related to the sample size. With a big sample size ($n > 300$), the normality should be guided by the histogram and can be assumed when the absolute values of skewness and kurtosis are below 2 (Micceri, 1989). Along similar lines, Minium, King, and Bear (1993) argued that some latent constructs are measured by psychometric scales and they are considered as composite variables reflecting the additive influence of environmental and psychological effects. Thus, the respondents' total score may cluster at the high end (4 and 5 on a five-point Likert scale) or at the low end (1 or 2) according to their momentary psychological status (Minium et al., 1993). The descriptive statistics of the 20 item engagement scale are displayed in Table 5.11 below.

The histogram in Figure 5.3 shows that the data retrieved by the engagement scale are normally distributed and the absolute values of skewness and kurtosis were -.6 and 1.1 respectively (below 2; Micceri, 1989). As shown in Table 5.12 and Figure 5.3, the mean, median and mode were relatively close and reflected a bell-shape distribution. Drawing on the histogram and the attitudinal nature of the engagement construct, the acceptability of the sample was assumed.

Table 5.11

Item Analysis: Mean, Standard Deviation, and the corrected item-total correlation of the 20-Item Engagement Scale

	M	SD	r tot
I am enthusiastic in my job	3.98	.72	.72
When I get up in the morning, I feel I like going to work	3.72	.84	.61
I am proud of the work that I do	4.35	.72	.67
I speak highly of this organization to my friends	3.76	1.07	.56
I feel energetic at my work	3.76	.76	.68
I feel positive about my job	3.97	.84	.74
At work, I am passionate about my job	4.00	.87	.75
I show a great deal of passion while performing tasks	3.85	.86	.67
When I am working, I often lose track of time	3.53	.89	.41
Performing my job is so absorbing that I forget about everything else	3.02	.96	.43
This organization really inspires the very best in me in the way of job performance	3.25	.96	.62
My job inspires me	3.56	.93	.74
I find the work I do full of meaning and purpose	3.88	.96	.63
I understand how my role relates to company goals and objectives	4.08	.87	.50
I do my best to solve problems that arise in my job	4.48	.59	.48
At work, I persist through challenges	4.36	.63	.42
I look for innovative ways to do my job efficiently	4.14	.78	.49
I enjoy working toward achieving the organizational objectives	3.87	.88	.65
I fulfil the assigned responsibilities and duties defined in my job description	4.51	.64	.44
I perform the tasks that are expected to meet performance requirements	4.50	.59	.42

Note. N = 449; r tot = corrected item-total correlation; Items scored on a five-point Likert scale from 1 (never) to 5 (always).

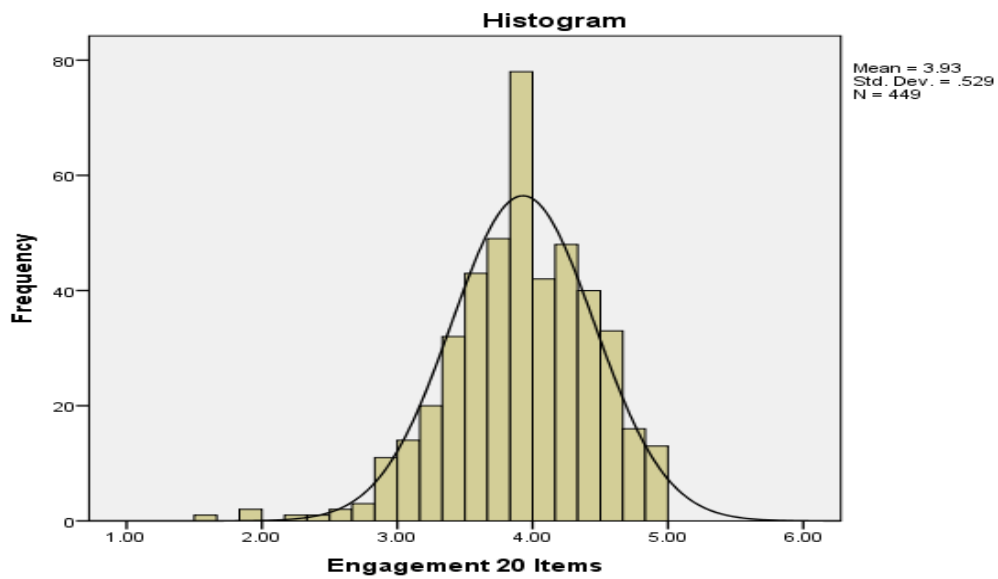


Figure 5.3 The Histogram for the 20-Item Engagement Scale

Table 5.12

Mean, Standard Deviation, and Skewness of the 20-Item Engagement Total Score

	Mean	SD	Median	Mode	Skewness	kurtosis
Engagement Total Score	3.93	.52	3.95	4.00	-.60	1.18

Note. N = 449; Items scored on a five-point Likert scale from 1 (never) to 5 (always).

5.4.6 Common Method Variance

Several researchers (e.g. Nunnally and Bernstein, 1994; Spector, 1994) have noted that the relationships between measures might be systematically threatened by common method variance (biasing effects due to using self-report measures, response format, the social desirability of respondents, and/or the content of scale items). In other words, method variance has a potentially confounding effect on construct validity as the likelihoods of measurement errors (Type I and Type II measurement errors) to occur are enhanced, hence, leading to inflated or deflated observed correlations between the measures. Despite the attempts to control the sources of common method variance at the early stages of scale

development, the possible effect of measurement bias needs to be verified at this stage. One common way is to run an exploratory factor analysis and constraining all the items of the different measures to be extracted in one factor; if the majority of the variance in the unrotated solution is explained by this single factor, then common method variance can be an issue (Lowry, Gaskin, Twyman, Hammer, and Roberts, 2013; Podsakoff, MacKenzie, Lee, and Podsakoff, 2003). In the present study, the factor explained only 25.08 of the total variance. This means that measurement bias is not a great concern and, therefore, is unlikely to contaminate the explanation of the results.

5.4.7 Test for Invariance

To assess if the factor structure of the engagement scale works in a conceptually similar manner across groups, structural invariance (equivalence) was tested. The process of testing the structural invariance includes defining two models (constrained and unconstrained) hypothesizing that they show equivalent fit (there is no significant difference) when measured across some specified groups (Vandenberg and Lance, 2000). In the unconstrained model, the regression paths are set free to vary across those groups, whilst in the constrained model, the regression paths (factor loadings) are constrained to be equal across groups. In the current study, the structural invariance of the engagement scale is only tested amongst the gender groups (male and female) as the scale structure may vary according to the participants' tenure, occupation, and age. Table 5.13 shows that the two models reported satisfactory fit, hence, indicating a good case for structural invariance for the engagement scales across male and female participants.

Table 5. 13
Structural Invariance of the Engagement 2nd Order 5-Factor Scale: Models Fit Indices

Model Tested	CMIN/df	RMSEA	Confidence Interval (90%)	CFI	AGFI	No. of Items
Unconstrained Model	2.61	.06	.05 to .06	.89	.78	20
Constrained Mode	2.60	.06	.05 to .06	.89	.78	20

Note. N = 447(Male= 184; Female=263); CMIN/df = adjusted chi-square; RMSEA = root mean square error of approximation; CFI = comparative fit index; AGFI = adjusted goodness of fit index.

5.4.8 Discriminant Validity

One key objective of the present research is to explicate and examine the uniqueness of the engagement construct. The engagement scale is theoretically expected to indicate acceptable levels of discriminant validity when it is compared to other attitudinal constructs. To this end, Pearson Correlation was used to collect evidence of discriminant validity and provide a statistical view about the commonalities that may exist between the newly developed engagement scale and the well-established attitudinal measures of job involvement, job satisfaction and organizational commitment. Determining the normal distribution of the scales (job satisfaction, organizational commitment, and job involvement) is important before examining the discriminant validity of employee engagement construct amongst these constructs. Following Minium et al.'s (1993) argument that the substantial normality might not be attained with some attitudinal constructs and, therefore, should be guided by the histogram and the absolute value of skewness (below 2), the normality can be assumed for the used scales. Table 5.14 displays the mean, standard deviation, and the absolute values of skewness for the used scales, whilst the normality histograms are presented in Appendix H.

The results revealed that the associations between the engagement scale and the other measures ranged from low to moderate. The results indicated that the highest correlation was found between engagement and job satisfaction ($r = .62$), whereas the lowest correlation was found between engagement and organizational commitment ($r = .38$). The descriptive statistics of measures and their inter-correlations are presented in Table 5.14.

These findings weaken the argument stating that job involvement and organizational commitment are key ingredients of the engagement construct (Macey and Schneider, 2008). However, the theoretical distinctiveness of the engagement scale amongst these nomologically related attitudinal constructs needs to be further verified.

Table 5.14
Means, Standard Deviations (SD), and the Correlations of the Scales

	M	SD	Skewness	Kurtosis	1	2	3	4
1. Engagement	3.93	.52	-.60	1.18	(.92)	-	-	-
2. Satisfaction	5.22	.98	-.89	.92	.62**	(.90)	-	-
3. Commitment	4.15	.81	-.18	.26	.38**	.39**	(.82)	-
4. Involvement	2.90	.76	.13	-.30	.47**	.26**	.33**	(.78)

Note. ** = $p < .001$ (two tailed); Coefficient alphas are reported along the diagonal in parentheses; engagement items scored on a five-point Likert scale from 1 (never) to 5 (always); Satisfaction items scored on a seven-point Likert scale from 1 (extremely dissatisfied) to 7 (extremely satisfied); Commitment items scored on a seven-point Likert scale from 1 (strongly disagree) to 5 (strongly agree). Involvement items scored on a five-point Likert scale from 1 (strongly agree) to 5 (strongly disagree).

To this end, an exploratory factor analysis was computed on all items of the scales used in Study I. Thirteen factors emerged with Eigenvalue greater than 1, accounting for 54.23% of total variance. The Kaiser-Meyer-Okin (KMO) of sampling adequacy was .91 (well above the limit of .5) and the Bartlett's test of sphericity was significant at $p < .001$ (Hair et al., 2010; Tabachnick and Fidell, 2007).

The rotated factor matrix (see Appendix I) revealed that Factor1 consisted of fifteen items representing satisfaction, four items assessing organizational commitment, and four items evaluating the pride, inspiration, discretionary effort, and meaningfulness aspects of the engagement construct. Further, nine items of the engagement scale, representing the “positive emotions and activation” component, were extracted in a separate factor (Factor 2) and they did not tend to load significantly on any other factor. Three items assessing the “persistence” component of the engagement construct were extracted distinctively on Factor 7. Two items (“Performing my job is so absorbing that I forget about everything else”, and “when I am working, I often lose track of time”), that assess the “absorption” dimension of engagement, were extracted on Factor 9 while the “task performance” component was represented by two items and they distinctively loaded on Factor 8.

These findings indicated that only the “identification” component of engagement shares some commonalities with two attitudinal constructs (organizational commitment and job satisfaction) in terms of meaningfulness, inspiration, and attachment with the organization. This aligns with the notion stating that employee engagement shares some commonalities with organizational commitment, especially affective commitment (Macey and Schneider, 2008). However, the engagement construct contains distinct facets above those constructs in the sense that engaged employees tend to be more passionate, absorbed, persistent, and positively attached to their roles and goal accomplishment (Macey and Schneider, 2008; Vigoda-Gadot et al., 2012).

5.4.9 The Relationship between Engagement and Respondents’ Demographics

Drawing on the data retrieved in Study I, the relationships between employee engagement and the respondents’ demographics were examined. The association between engagement and the variables of age and tenure were tested using Spearman’s correlation. As shown in

table 5.15, employee engagement was found independent and insignificantly correlated with age and weakly correlated with tenure ($r = .09$).

Table 5.15

Inter-correlations: Engagement, Age, and Tenure		
	Age	Tenure
Engagement	.06	.09*
Valid N	442	446

Note. $p < .05$ (two tailed)

To explore the differences in the levels of engagement within gender, occupational groups, and industry type groups, ANOVA was run. Table 5.16 shows that a significant relationship was found between gender and engagement ($p < .05$; Mean = 3.99 for females and = 3.83 for males). These results indicate slight gender differences and add to the inconsistent results of previous research examining the association between engagement and gender differences. For instance, Schaufeli et al. (2006) collected data from ten different countries for the purpose of measuring employee engagement with the short version of the Utrecht Work Engagement Scale (UWES). The results of the relationship between gender and engagement were found to be inconsistent amongst different samples. For example, the Australian, Canadian, and French samples reported no gender differences in association with engagement. In the Spanish and South African samples, females were found more engaged than males, whereas in the Belgian, German, Finnish, and Norwegian samples, male participants reported a higher level of engagement than what female participants displayed. Further, the association between industry type and engagement was found insignificant (see Table 5.16). This finding should be interpreted with caution as the sample size and sample representativeness might affect the generalizability of this finding. For instance, the sample consisted of 163

Table 5.16
ANOVA Results: Engagement and Gender, Occupation, and Industry Type

	df	SS	MS	F	Sig.
Gender	1	1074.98	1074.98	9.77	.002*
Occupation	7	2070.21	295.74	2.70	.009*
Industry Type	15	2133.54	142.23	1.28	.20

Note. SS = Sum of Squares; MS=Mean Square; * = $p < .05$ (two tailed)

professionals, whereas the number of operators and drivers was only 17 participants (see Table 5.17).

Table 5.17
Descriptive Statistics: Gender, Occupation, and Industry Type of Participants

		M	SD	N	Min.	Max.
Gender	Male	3.83	.52	184	1.90	4.95
	Female	3.99	.52	263	1.50	5.00
Occupation	Manager	4.09	.43	72	2.85	4.95
	Professional	3.95	.48	163	1.50	4.90
	Technicians & Trades Workers	3.91	.54	58	2.60	4.95
	Community & Personal Services Workers	4.07	.50	19	3.00	5.00
	Clerical & Administrative Workers	3.85	.56	73	2.30	5.00
	Sales Workers	3.69	.68	19	1.90	5.00
	Machinery Operators & Drivers	3.77	.51	17	2.65	4.70
	Laborers	3.71	.66	20	2.85	4.95
	Manufacturing	3.92	.48	45	2.85	4.75
Industry Type	Education	4.01	.51	98	1.50	5.00
	Electronics	3.85	.43	10	3.20	4.60
	Finance & Insurance Services	3.82	.57	27	2.50	4.90
	Construction	3.88	.54	24	2.60	4.65
	Media	4.14	.27	5	3.75	4.40
	Transport, Postal & Warehousing	3.78	.57	17	2.85	5.00
	Telecommunication	3.90	.60	8	2.90	4.50
	Hospitality	4.07	.48	16	2.90	5.00
	Health Care & Social Assistance	3.98	.47	94	2.80	5.00
	Public Administration and Safety	3.80	.52	50	2.30	4.95
	Real Estate Services	4.13	.50	8	3.30	4.65
	Agriculture, Horticulture & Forestry	3.93	.42	7	3.30	4.66
	Food	3.38	.58	3	2.75	3.90
	Energy	3.60	.44	5	2.95	4.00
	Retail Trade	3.77	.84	17	1.90	4.80

Note. Min. = Minimum; Max. = Maximum.

5.5 Study I Discussion

5.5.1 The dimensionality of the engagement construct

Framed on the proposed definition of employee engagement, a 27-item engagement scale was developed to evaluate each component of the construct. After conducting a series of exploratory factor analysis and a confirmatory factor analysis, a set of 20 items remained and comprised the final version of the engagement scale. The results revealed that employee engagement is a multidimensional construct consisting of five factors, including some dimensions used by previous measures of engagement (e.g. Schaufeli et al.'s, 2002) and proposing additional dimensions to be considered when measuring the engagement construct.

Based on the findings, it is argued that “cognition” is a key component of the engagement construct. The cognitive aspect relates to the individual’s judgment of need satisfaction, which is influenced by their cognitive perceptions of the nature of the assigned duties and tasks, the organizational practices, and business environment (Harter et al., 2002; Kahn, 1990; Kanste, 2011; Macey and Schneider, 2008; Zigarmi et al. 2009). However, engagement means more than just the sense of needs fulfilment and it is more related to individuals’ state of intellectual absorption (Schaufeli et al., 2002; Soane et al., 2012). The current findings support this argument through the emergence of the “absorption” (cognitive) dimension as a distinct factor. Absorbed employees tend to voluntarily occupy themselves with, and fully concentrate on, task performance and goal accomplishment. They are characterized by having a clear mind, effortless concentration, and focussed attention. The time flows quickly and they find it difficult to detach themselves from work (Schaufeli et al., 2002; Schaufeli and Bakker, 2004).

Further, the results revealed that the aspect “positive emotions and activation” was a key dimension of the factorial structure. This implies that positive emotions are essential for individuals in order to experience engagement (Soane et al., 2012). From the broaden and built theory (Fredrickson, 1998) perspective, positive affect (emotions) can widen the scope of the quality and frequency of relationships between actions and thoughts. Thus, when individuals feel positive about their work, their interest to socialize and interact with others will be increased and enhanced (Pelled and Xin, 1999). Further, several conceptualizations of employee engagement connote the sense of positive emotions and described engaged employees as those who display enthusiasm, pride, passion, and emotional positivity at work (Macey and Schneider, 2008; Mäkikangas et al., 2013; Wefald et al., 2011). Thus, engaged employees with positive emotions towards their work tend to, actively, interact with the surrounding environment, including their colleagues, leaders, and external business parties (e.g. customers and suppliers), (Staw, 2004). This will facilitate and enhance the exhibit of high levels of energy and activation while performing role-tasks and striving toward goals-accomplishment (VandenBos, 2007).

In addition, the behavioural aspect emerged as a key dimension in the engagement factorial structure and reflected the motivational connotation of engagement. Several scholars have proposed that discretionary effort (Macey and Schneider, 2008; Zigarmi et al., 2009), organizational citizenship behaviour (Newman and Harrison, 2008), proactive behaviour (Macey and Schneider, 2008), pro-social behaviour (Saks 2006) and profitability (Harter et al., 2002) reflect the behavioural component of engagement. However, the previous scales did not include items that assess different forms of engagement behaviours. Furthermore, Schaufeli (2014) called for a broader conceptualization of the construct that includes the behavioural component and describes how engaged employees contribute to the achievement

of organizational goals. Along similar lines, Newman and Harrison (2008) called for items that measure daily task performance, as engaged employees are not expected to neglect everyday tasks while striving to perform beyond expectations. To the researcher's best of knowledge, this research provides the first attempt that measures the "persistence and discretionary effort" and "task performance" aspects of engagement. The current findings support those arguments by extracting the items assessing "discretionary effort and persistence" and "task performance" in distinct factors. The "persistence and discretionary effort" dimension contains items that reflect individuals' tendencies to put in extra effort, persist through challenges, and look for innovative ways to solve work related issues and enhance their performance effectiveness. The items that evaluate the "task performance" aspect reflect individuals' tendencies to perform according to their job descriptions. During a stable business environment, employees perform their tasks and fulfil the assigned responsibilities as required (Newman and Harrison, 2008), while they tend to be innovative, persistent, and proactive when the organization faces hard times and challenges (Macey and Schneider, 2008). This aligned with the state conceptualization of engagement; individual's level engagement ebbs and flows according to the surrounding environment (Kahn, 1990). However, defining engagement as just a stable and continuous state might have a negative side, as it deliberately excludes the focal work role behaviour of being a good citizen, attendant, and doing the job well; employees in stable environmental conditions seek challenging tasks at the expense of performing routine tasks and key role requirements (Newman and Harrison, 2008). This leads to inefficiency in applying certain HR practices such as managing performance, designing and implementing performance-based reward systems, and executing employee retention strategies. Furthermore, engagement is still

expected to have trait like and state like components. This notion will be discussed in Chapter Six.

In addition, the theme “identification” (individuals are aware of how their role performance is linked to the achievement of organizational objectives) emerged in a distinct factor and was found as an additional component of the engagement construct. This aligned with some academics and practitioners who referred to engagement as a construct including individuals’ identification with and involving in the organizational values, vision and goals. For instance, Shanmugam and Krishnaveni (2012) defined engagement as individuals’ dedication of role performance and exertion of extra effort to assist the organization achieve its objectives. Similarly, Witemeyer et al. (2013) described engaged employees as those who employ their vigor, absorption, dedication, and motivation in serving the organization’s goal accomplishment. Further, Schaufeli (2014) stated that the behavioural aspect of engagement, in line with organizational objectives, should be included in any operational definition of the engagement construct. Defining engagement through individuals’ identification with organizational objectives is similar to some definitions of affective commitment. For instance, Allen and Meyer (1990) defined affective commitment as individuals’ emotional attachment, involvement in, and identification with the organizational goals. However, the identification aspect, revealed by this research, is more comprehensive and has an interpretive value beyond the identification of affective commitment. While affective commitment refers to emotional attachment and self-identification with the organizational goals, employee engagement refers to individuals’ investment of themselves cognitively, emotionally, and behaviourally in a way that connotes high levels of passion, energy, and challenge. Further, engaged employees consider achieving the organizational objectives essential for enhancing their self-image and satisfying their inner ambition. The similarity

and distinctiveness between employee engagement and organizational commitment will be discussed in section 5.7.1 below.

The confirmatory factor analysis, in this data set, also revealed that the extracted factors reported better correlations in a second-order factorial model than in a first-order factorial structure. In a second-order model, the factors displayed higher interrelations with engagement (ranging from .53 to .82) than the factors of the first-order model (ranging from .23 to .33). This finding supports Newman and Harrison's (2008) argument that employee engagement is best explained by a higher order factor, which is reflected by cognitive, emotional, and behavioral interrelated factors.

5.5.2 The Distinctiveness of Employee Engagement

As discussed in the introductory chapters, another important debate that emerges from the engagement literature concerns engagement's distinctiveness from other work related attitudes and psychological states. Specifically, organizational commitment (especially affective commitment), job satisfaction, and job involvement were considered as main facets of state engagement (Macey and Schneider, 2008). Thus, examining the uniqueness and distinctiveness of employee engagement from those constructs was a key objective of this research. Towards that end, correlation analysis was run in order to statistically test the discriminant validity of the engagement construct.

The results revealed that the associations between the engagement scale and the other measures ranged from low to moderate. However, the highest correlation was found between engagement and job satisfaction ($r = .62$). This finding can be justified in that job satisfaction is an essential platform that needs to be built in order to maintain a positive work environment. Unlike engaged employees, satisfied employees are not motivated enough to exert extra levels of energy, effort, passion, and direct their performance towards goals

accomplishment. Satisfaction is similar to satiation (satisfied individuals have positive emotions about their jobs but may not show high levels of activation, Christian et al., 2011), referring to the individual's evaluative judgment of work conditions (Weiss, 2002), and reflects individuals' positive or negative attitudes about job characteristics (Macey and Schneider, 2008). This means that job characteristics are key predictors of job satisfaction but do not explain why certain employees choose to engage. Thus, job characteristics are best to be linked to job satisfaction and work conditions that help creating the engagement environment rather than being examined as direct predictors of employee engagement, unlike what some practitioners and scholars of engagement (e.g. Schaufeli et al., 2002) have proposed.

Employee engagement has been also defined in relation to job involvement in terms of individuals' cognitive judgment about the degree to which the job can satisfy their needs (May, Gilson, and Harter, 2004), and employees are concerned with, and preoccupied with their jobs (Macey and Schneider, 2008). Regardless of low commonalities found between the two constructs, employee engagement is still wider in its scope; engaged employees focus on work and organization while involved employees focus only on work related tasks (Salanova, Agut, and Peiro, 2005; Vigoda-Gadot et al. 2012). Further, engaged people employ themselves in their jobs cognitively, emotionally, and behaviorally but not only cognitively like involved individuals (Saks, 2006). Job involvement refers to the degree to which individuals' identity is defined by the job situation; job involvement refers to some aspects of the job where individuals' needs and expectations can be satisfied (May et al. (2004) while engagement is more comprehensive since it refers to all work tasks including the ones at the organizational level. Thus, job involvement can be a facet of the engagement

construct, since it is related to the cognitive part of the engagement, but is not equivalent to it (Christian et al., 2011).

Furthermore, an exploratory factor analysis was run, including the newly developed 20-item engagement scale and the items of those constructs, to collect empirical evidence about the factorial distinctiveness of employee engagement from those attitudinal constructs. Similar to the findings of the correlation analysis, “identification” was the only aspect of engagement that shared some commonalities with the other constructs. The other factors of engagement (discretionary effort and persistence, positive emotions, absorption, and task performance) were extracted in clear and distinct factors. Although the items representing the “identification” dimension of engagement and those of affective commitment emerged in the same factor, engaged employees have a wider business awareness, goal orientation, and persistence through challenges, above the simple emotional attachment of just committed employees (Macey and Schneider, 2008; Vigoda-Gadot et al., 2012). Further, engaged employees strive and proactively look for new ways of achieving goals due to satisfying their inner ambition and maintaining a good self-image about their capabilities.

From the results of correlation and exploratory factor analyses, it was empirically evident that employee engagement is more than simply an amalgam of job involvement, job satisfaction, and organizational commitment, and has certain characteristics above those found in these psychological constructs (Macey and Schneider, 2008; Rich et al., 2010; Vigoda-Gadot et al., 2012).

Chapter 6. Study II: Test-Retest Reliability and Hypotheses Testing

6.1 Introduction

As stated in Chapter One, Study II was designed to further validate the measure of engagement developed in Study I, and to examine the study hypotheses of the relationships between employee engagement, as defined in Study I, and the independent variables of leadership styles and personality attributes. Further, the factor analyses, reliabilities of measures, and the descriptive statistics of variables are demonstrated in this chapter.

6.2 Study II Participants

The sample for Study II was selected from those who participated in Study I and had expressed their willingness to participate in Study II. From a quantitative point of view, maintaining an extent of heterogeneity in sampling is beneficial as it increases the likelihood of results generalizability (Neuman, 2003). As multiple regression was used to predict employee engagement on the basis of respondents' scores on the independent variables (leadership styles and personal attributes), a general rule of thumb of statistical power (0.80; Cohen, 1988) suggests that 15 respondents are needed for each independent variable included in the statistical analysis (Stevens, 1996). In total, 112 responses were received exceeding the minimum needed for the analysis.

6.3 Study II Procedure

Once the internal consistency, the factorial structure, and validity of the engagement scale had been tested and the final items for the engagement scale had been set (Study I), the second stage of collecting data (Study II) took place. Data gathered in this phase were used to do

test-retest reliability, where using the same measurement tool and the same sample under the same response conditions is seen as necessary to establish repeatability (Allen and Yen, 1979).

The associations between the hypothesized predictors and employee engagement were examined by conducting a multiple regression analysis, using SPSS version 22. Towards that end, the measures of leadership styles (transformational and transactional) and personality attributes (positive affect, proactive, conscientiousness, autotelic, and extroversion) were added to the newly designed questionnaire with the new engagement measure (see Appendix J). Volunteers from Study I received an email containing an invitation letter explaining the purpose of collecting data for Study II and guiding them to complete a secured online questionnaire (via Survey Monkey, see Appendix K).

Similar to the procedure followed in Study I, the initial steps for preparing the raw data for analyses included screening for missing data and recoding negatively worded items. In total, 112 responses were received, 50.4% of the sample invited to take part in study II. Six respondents answered the engagement items and preferred not to answer the items of leadership and personality scales. The decision was made to include those cases in the test-retest analysis of the engagement scale, but to be excluded when testing the hypotheses. After deleting those responses with a high percentage of missing data, the SPSS missing value analysis was run and a small percentage of data were found to be missing (less than 15% of missing data, Leong and Austin, 1996). The analysis revealed that the data were at random missing with $p = .20$ ($p > .05$ indicates “random missing”, Mertler and Vannatta, 2005). Thus, the decision was made to replace the missing data with the “average value (mean) imputation” (replacing the missing values with the mean of the available data). Again, this approach is considered appropriate when there are few missing values (less than 15%) and

protecting the sample size is important (Mertler and Vannatta, 2005). In total, the responses of 106 participants were retained and consequently analysed.

Some of the scales used in Study II contained negatively worded items and they were reverse recoded using the recoding option in SPSS. Specifically, four items of the newly developed autotelic scale were reversed with higher scores indicating low levels of autotelic personality. Similarly, four items of the 12-item scale assessing conscientiousness (e.g. “I waste a lot of time before settling down to work”, Costa and McCrae, 1992) and four items of the 11-item measuring extroversion (e.g. “I usually prefer to do things alone”, Costa and McCrae, 1992) were reversed so that higher scores indicate low levels of conscientiousness and extroversion. Further, one item (“I intend to let others take the initiative to start new projects”) from Bateman and Crant’s (1993) proactive personality scale was reversed so that higher scores indicate low levels of proactive personality.

6.3.1 Study II Measures

Employee Engagement: Employee engagement was measured using the 20-item engagement scale developed in Study I. In Study II, the coefficient alpha for the 20-item engagement scale is .89.

Leadership Scale: Leadership styles were evaluated using the Multifactor Leadership Questionnaire (MLQ-5X version; Bass and Avolio, 2004). The MLQ is a widely used measure consisting of 45 items. However, only 32 items evaluating followers’ perceptions of their leaders’ transformational behaviours (inspiration, idealized influence, intellectual stimulation, and individual consideration) and transactional behaviours (active and passive management by exception and contingent reward) were selected due to the focus of the current study. Idealized influence/attributed was measured by four items (e.g. “My supervisor goes beyond self-interest for the good of the group”), whilst idealized influence/behaviour

was assessed by four items (e.g. “My supervisor considers the moral and ethical consequences of decisions”). Inspiration was assessed by four items (e.g. “My supervisor articulates a compelling version of future”) and individual consideration was assessed by four items (e.g. “My supervisor treats me as an individual rather than just a member of a group”). Finally, intellectual stimulation was evaluated by four items (e.g. “My supervisor suggests new ways of looking at how to complete assignments”). For transactional leadership, four items were used to measure contingent rewards (e.g. “My supervisor makes clear what one can expect to receive when performance goals are achieved”). Management by exception/active was assessed by four items (e.g. “My supervisor keeps track of all mistakes”), whilst, management by exception/negative was assessed by four items (e.g. “My supervisor waits for things to go wrong before taking action”).

In the current study, the reliability of the transformational general scale was found to be strong with a coefficient alpha = .96 (idealized influence/attributed, $\alpha = .91$; idealized influence/behavioural, $\alpha = .85$; individual consideration, $\alpha = .87$; intellectual stimulation, $\alpha = .87$; inspirational motivation, $\alpha = .87$). Similarly, management by exception/active, management by exception/passive, and contingent reward reported good reliabilities with coefficient alphas = .85, .83, and .82 respectively.

Conscientiousness and extroversion: Conscientiousness and extroversion were assessed using the NEO Five-Factor Inventory (NEO-FFI; Costa and McCrae, 1992). NEO-FFI has been widely used and reported satisfactory to strong reliabilities in the psychology literature (Costa and McCrae, 1992). Initially, the 11 items assessing extroversion reported a low reliability in the current study. Thus, the items were subjected to an exploratory factor analysis for the purpose of examining the factorial structure of the scale and excluding the items with low loadings (less than .4, Hair et al., 2010; Stevens, 2009). The factor structure

resulted in five items representing the “energy and activation domain. Since extroversion is linked to employee engagement in the sense of high energy and activation (Kim et al., 2009) and depending on the factor structure, the decision was made to rely only on those five items to examine the association between extroversion personality and employee engagement. Twelve items (e.g. “I strive for excellence in everything I do”) were used to assess conscientiousness. In the current study, the coefficient alpha for conscientiousness is .86. The five items assessing the “energy and activation” domain of extroversion reported satisfactory reliability, $\alpha = .694$ (close to the .7 threshold). The results of the exploratory factor analysis for the extroversion scale are detailed in 6.4.2 below.

Autotelic Personality: to the researcher’s knowledge, there is no widely used measure of autotelic personality. Thus, several scales were adapted to measure the dimensions of autotelic as a personality attribute. Conceptually speaking, individuals with autotelic personality tend to transfer threats into enjoyable challenges and motivated by their own self-accomplishment rather than rewards for performing tasks and achieving goals. They are characterized by their tendency to set challenging objectives, involve actively, sustain focus, and find innovative ways to perform role tasks (Csikszentmihalyi, 1988; Nakamura and Csikszentmihalyi, 2002). Aligned with these characteristics of the autotelic personality, items selected from Hung, Ku, and Chang’s (2003) scale were adapted to measure the self-efficacy and personal innovativeness aspects of the autotelic attribute. Specifically, three items (e.g. “I would feel comfortable doing challenging tasks on my own”) were used to assess self-efficacy, whilst, personal innovativeness was evaluated by four items (e.g. “I am challenged by ambiguities and un-solved problems”). The third domain of the autotelic personality (focused attention) was measured by adapting three items from Webster, Trevino, and Ryan’s (1993) attention scale. An example item is “When performing my tasks, I am totally absorbed

in what I am doing”. Responses were scored on a 5-point Likert scale ranging from “Never” (1) to “Always” (5).

Initially, the 10-item autotelic scale was subjected to an exploratory factor analysis for the purpose of examining the factorial structure of the newly developed scale and excluding the items with low loadings (less than .4). The rotated factor structure resulted in seven items representing the proposed three factors and reporting a satisfactory level of internal consistency, coefficient alpha = .695 (close to the .7 threshold). The results of the exploratory factor analysis for the autotelic scale are detailed in 6.4.2 below.

Proactive personality: proactive personality was assessed using the short version of Bateman and Crant’s (1993) Proactive Personality Scale. The scale contains six items (e.g. “I look for better ways to do things”). Responses were scored on a 5-point Likert scale ranging from “Never” (1) to “Always” (5). In the current study, the scale reported satisfactory reliability with coefficient alpha = .74.

Positive affect personality: positive affect was measured using items from the Positive Affect and Negative Affect Schedule (PANAS; Watson et al., 1988). The scale contains six items (e.g. “To what extent do you generally feel inspired?”). Responses were scored on a five-point Likert scale ranging from “Not at All” (1) to “Extremely” (5). In the current study, the scale reported good reliability with coefficient alpha = .85.

6.4 Results

6.4.1 Test-Retest Reliability

Verifying the normality of the engagement scale within the sample of Study II was an essential practice before proceeding to examine the test-retest reliability of the scale. As Figure 6.1 shows, the sample indicated a bell-shaped distribution and the absolute value of

skewness was .68. Following Minium et al.'s (1993) argument that the substantial normality might not be attained with some attitudinal constructs and, therefore, should be guided by the histogram and the absolute values of skewness and kurtosis (below 2; (Micceri, 1989), the normality can be assumed for the engagement scale in Study II. The absolute values of skewness and kurtosis for both samples (Study one and two) were found close (skewness = -.60 and -.68; kurtosis = 1.18 and 1.44 respectively). This indicates that the engagement construct is considerably stable over the two studies.

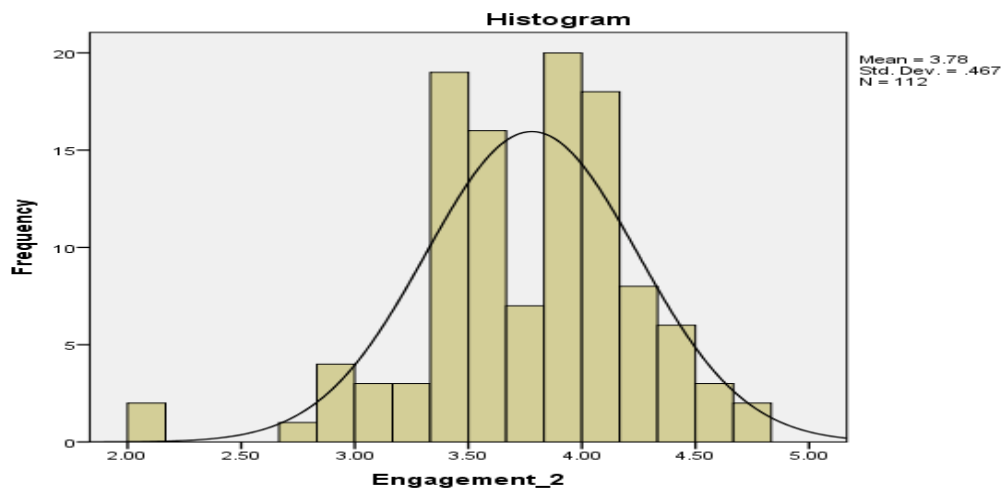


Figure 6.1 The Histogram for the 20-Item Engagement Scale (Study II)

In order to have an adequate test-retest reliability, the coefficient alpha has to be above .7 (Nunnally and Bernstein, 1994). In the present study, the results revealed that the engagement scale was consistent in both studies and displayed a good reliability with Coefficient alpha = .92 in Study I and .89 in Study II. The correlation between the two scales was .82 and the Spearman-Brown coefficient was .90. As displayed in Table 6.1, the engagement subscales reported acceptable levels of internal consistency (above .7, Nunnally and Bernstein, 1994). The full information about the scale statistics, item statistics, and item total statistics of Study II engagement scale are available in Appendix L.

Table 6.1

Coefficient Alpha, Mean, and Standard Deviation for the Engagement Subscales (Study II)

Engagement Variables	Alpha	M	SD	N of Items
20-Item Engagement	.89	3.77	.47	20
Emotions & Activation	.92	3.70	.62	9
Discretionary Effort	.74	4.22	.56	3
Absorption	-	3.23	.75	2
Identification	.81	3.52	.68	4
Task Performance	-	4.49	.55	2

Note. N of participants = 112; Items scored on a five-point Likert scale from 1 (never) to 5 (always).

6.4.2 Exploratory Factor Analyses and Reliability Tests for the Used Measures

The scales used in Study II reported satisfactory levels of internal consistency except for the 11-item extroversion scale, which reported low reliability with coefficient alpha = .56. Thus, the scale was subjected to an exploratory factor analysis with principal axis extraction for the purpose of examining the factorial structure of the scale and excluding the items with low loadings (less than .4). The oblique rotation was used as the extroversion construct consists of subscales (sociability, energy and activation, and positive affect) that are theoretically expected to correlate. Four factors were extracted with Eigenvalue greater than 1, accounting for 40.76% of the total variance. The results revealed that the Bartlett's test of sphericity was significant at $p < .001$ and the KMO of sampling adequacy was .61 (acceptable, Hair et al., 2010).

As displayed in Table 6.2, the factor matrix shows that Factor 1 consists of 5 items representing the “energy and activation” domain, whilst the remaining factors were only represented by single items (those which significantly load above .4). Since extroversion is linked to employee engagement in the sense of high energy and activation (Kim et al., 2009) and depending on the number of items representing each factor (at least 2 items for each factor, McDonald, 1999), the decision was made to retain and use only the five items of “energy and activation” when examining the association between extroversion personality and employee engagement. The five items reported satisfactory reliability with coefficient $\alpha = .694$ (close to the .7 threshold).

Table 6.2
The Factor Matrix of the 11-Item Extroversion Scale

	Factor			
	1	2	3	4
I like to be where the action is	.57	-.11	-.07	-.06
I often feel as if I am bursting with energy	.45	-.15	.32	.22
I am cheerful, high-spirited person	.66	.41	-.49	-.02
My life is fast-paced	.53	-.14	.29	.01
I am a very active person	.71	-.39	-.05	-.08
I usually prefer to do things alone (R)	.08	.57	.43	-.33
I am not a cheerful optimist (R)	.08	.24	.06	.63
I laugh easily	.07	.31	-.26	-.01
I don't consider myself especially “light hearted” (R)	-.12	.34	.04	.11
I really enjoy talking to people	.29	.21	.17	-.03
I would rather go my own way than be a leader to others (R)	.35	.29	.11	.01
% of Variance	18.3	10.2	6.8	5.3

Note. N = 106; Principal axis with direct oblimin; Item cross-loadings above .4 are indicated in boldface.

For the newly developed 10-item autotelic scale, an exploratory factor analysis was conducted to assess the scale factorial structure and exclude the items with low loadings (less than .4). Principal axis extraction with varimax rotation was used as the autotelic subscales (self-efficacy, personal innovativeness, and attention) are theoretically distinct and they are not expected to correlate (Tabachnick and Fidell, 2007).

Initially, the 10 items were extracted in three distinct factors. Two items (“I am challenged by ambiguities and un-solved problems” and “when performing my tasks, I am aware of distractions”) failed to load above the .4 cutoff. The item “I find it stimulating to be original in my thinking and behaviour” cross-loaded on two factors (.36 on Factor 1 and .47 on Factor 2). Thus, the decision was made to delete these three items and to conduct another exploratory factor analysis on the remaining seven items.

As shown in Table 6.3, the remaining seven items were extracted in three distinct factors accounting for 57.14% of the cumulative variance with Eigenvalue greater than 1. The Bartlett’s test of sphericity was found significant at $p < .001$ and the KMO of sampling adequacy was .57 (above .5). Factor 1 consisted of three items (e.g. I would be able to do tasks even if there is no one around me” representing “self-efficacy”. Two items (e.g. I must see other people using innovations before I will consider them) comprised Factor 2 (personal innovativeness) and two items (e.g. When performing my tasks, I am totally absorbed in what I am doing) formed Factor 3 (focus attention). The seven items reported satisfactory reliability with $\alpha = .695$ (close to the .7 threshold).

Table 6.3

The Factor Matrix: Varimax Rotated Factor Loading for the 7-item Autotelic Scale

	Factor		
	1	2	3
I would be able to do tasks reasonably well on my own	.93	.03	.12
I would be able to do tasks even if there is no one around me	.75	.11	.05
I would feel comfortable doing challenging tasks on my own	.53	.24	.08
When performing my tasks, I am totally absorbed in what I am doing	.20	.01	.72
I am generally cautious about accepting new ideas (R)	.12	.69	.04
I must see other people using innovations before I will consider them (R)	.13	.79	.08
When performing my tasks, I thought about other things (R)	-.00	.09	.66
% of Variance	31.3	13.7	12.1

Note. N = 106; Principal axis with varimax rotation; Item cross-loadings above .4 are indicated in boldface.

6.4.3 Normality Test

Verifying the normality of the scales within the sample of Study II was an essential practice before proceeding on conducting multiple regression analysis. As shown in Table 6.4 and Appendix M, the mean, median and mode were relatively close and reflected a bell-shape distribution. Further, the absolute values of skewness and Kurtosis ranged from .02 to .82 and .07 to 2.14 respectively. Following Minium et al.'s (1993) argument of that the substantial normality might not be attained with some attitudinal constructs and, therefore, should be guided by the histogram, the acceptability of the sample used in Study II was assumed.

Table 6.4

Descriptive Statistics, Skewness, Kurtosis, and reliabilities of the Scales

	Mean	SD	Median	Mode	Skewness	Kurtosis	Alpha	N of Items
Engagement (Study II)	3.77	.47	3.85	3.45	-.68	1.44	.89	20
Transformational	3.31	.77	3.45	3.55	.77	.09	.96	20
Management by Exception/Active	2.79	.89	2.75	3.25	-.30	-.19	.85	4
Management By Exception/Passive	2.52	.82	2.50	2.25	.82	.07	.83	4
Contingent Reward	3.21	.81	3.25	3.25	-.26	.11	.82	4
Positive Affect	3.71	.53	3.83	4.00	-.82	2.14	.85	6
Proactive	3.33	.52	3.33	3.67	-.16	-.45	.74	6
Conscientiousness	4.02	.49	4.08	4.25	-.82	1.90	.86	12
Extroversion	3.52	.53	3.54	3.8	.02	-.49	.69	5
Autotelic	3.65	.40	3.57	3.57	-.06	.36	.69	7

Note. N = 106.

6.4.4 Hypotheses Testing

Employee engagement was theoretically associated with certain leadership styles and personality attributes (Albrecht, 2010; Macey and Schneider, 2008). In alignment with a key objective of this research, the following hypotheses were proposed:

Hypothesis 1. There is a positive relationship between employee engagement and transformational leadership behavior.

Hypothesis 2. There is a positive relationship between employee engagement and “contingent reward” leadership behavior.

Hypothesis 3. Employees with higher positive affect will have higher levels of engagement.

Hypothesis 4. Employees with higher autotelic personality will have higher levels of engagement.

Hypothesis 5. Employees with higher proactive personality will have higher levels of engagement.

Hypothesis 6. Employees with higher conscientiousness will have higher levels of engagement.

Hypothesis 7. Employees with higher extroversion will have higher levels of engagement.

As a preliminary analysis, Pearson correlation was conducted to examine the inter-correlations between the dependent variable (employee engagement) and the independent variables (transformational leadership, transactional leadership, and the personality attributes of autotelic, extroversion, conscientiousness, positive affect, and proactive personality). The variables significantly correlated with employee engagement except active and passive management by exception. Table 6.5 shows that the strongest correlations were found between transformational leadership, positive affect conscientiousness, and contingent reward ($r = .46, .49, .44, .41$, respectively).

Table 6.5
Inter-correlations: Engagement, Leadership Styles, and Personality Attributes

	1	2	3	4	5	6	7	8	9	10
1. Engagement	-	-	-	-	-	-	-	-	-	-
2. Transformational	.46**	-	-	-	-	-	-	-	-	-
3. MBE/Active	.01	.12	-	-	-	-	-	-	-	-
4. MBE/Passive	-.14	-.48**	.06	-	-	-	-	-	-	-
5. Contingent Reward	.41**	.76**	.21*	-.42**	-	-	-	-	-	-
6. Conscientiousness	.44**	.14	-.08	-.05	.18	-	-	-	-	-
7. Positive Affect	.49**	.17	-.19*	-.05	.22*	.47**	-	-	-	-
8. Proactive	.27**	.08	-.04	.13	.18	.34**	.47**	-	-	-
9. Extroversion	.23*	-.01	-.09	.11	.09	.38**	.48**	.52**	-	-
10. Autotelic	.29**	-.05	-.11	.00	.03	.54**	.37**	.46**	.29**	-

Note. ** = $p < .01$; * = $p < .05$ (two tailed); N = 106

These results, in alignment with the findings of previous studies (e.g. Breevaart et al., 2014; Liao et al., 2012; Salanova et al., 2011; Zhu et al., 2009), support the proposed hypotheses stating that transformational leadership, contingent reward, positive affect, and conscientiousness are associated with employee engagement. As theoretically expected, contingent reward was the only dimension of transactional leadership found to be associated with engagement, unlike management by exception/passive and active. Surprisingly, the activation and energy domain of extroversion, autotelic personality, and proactive personality weakly correlated with engagement.

To formally test the hypotheses, multiple regression analysis with step-wise technique was conducted. The stepwise technique is recommended when the purpose is to understand the possibilities of certain variables (independent) to explain much of the variance on the dependent variable (Tabachnick and Fidell, 1996). Therefore, this technique is adequate to the operationalization of the engagement construct; testing how employee engagement can fit in a state-trait like nomological framework (personality attributes and leadership styles). Further, this technique is recommended when the independent variables are not expected to correlate (McDonald, 2014). In the current research, control variables were not included in the regression model as there is no well-explored and specific theory in the engagement literature to drive the use of controls. Spector and Brannick (2010) stated that the arbitrary inclusion of control variables will remove the real variance that needs to be preserved in the equation, and hence may blind the relationship between the main variables and the dependent one. In the case of engagement, there is no specific theory proposing relationships between employee engagement and certain control variables. Further, the relationship between most of the demographic variables and engagement were not significant in the current research. Thus, the decision was made to exclude control variable from the regression equation.

Table 6.6 displays that only three of the proposed antecedents (transformational leadership, conscientiousness personality, and positive affect personality) significantly predicted employee engagement and they explained 41% of its variance ($F = 25.89$, $p < .01$). The regression coefficients for transformational leadership ($\beta = .37$, $p < .01$), conscientiousness ($\beta = .23$, $p < .01$), and positive affect ($\beta = .31$, $p < .01$) were significant (see Table 6.7).

Table 6.6

ANOVA and Regression Model: Engagement and Transformational Leadership, Positive Affect, and Conscientiousness

Model	df	SS	MS	F	Sig.	R ²	Adjusted R ²
1 Positive Affect	1	5.68	5.68	33.27	.00	.24	.23
2 Positive Affect Transformational	1	9.11	4.55	32.68	.00	.38	.37
3 Positive affect Transformational Conscientiousness	1	10.14	3.38	25.89	.00	.43	.41

Note. N = 106; Dependent variable: employee engagement; SS = Sum of Squares; MS=Mean Square.

Table 6.7

Regression Coefficients: Engagement and Transformational Leadership, Positive Affect, and Conscientiousness

Model		B	SE	β	t	Sig.
1	Constant	2.16	.28	-	7.66	.00
	Positive affect	.43	.07	.49	5.76	.00
2	Constant	1.60	.27	-	5.77	.00
	Positive Affect	.37	.06	.42	5.40	.00
	Transformational	.23	.04	.38	4.95	.00
3	Constant	1.07	.33	-	3.24	.00
	Positive Affect	.27	.07	.31	3.66	.00
	Transformational	.22	.04	.37	4.90	.00
	Conscientiousness	.23	.08	.23	2.81	.00

Note. N = 106; Dependent variable: employee engagement; SE = Standard Error. B = Unstandardized Coefficient; β = Standardized Coefficient.

Thus, the hypotheses (1, 3, and 6), which propose relationships between the independent variables (transformational leadership, positive affect personality, and conscientiousness) and employee engagement, are supported. However, the associations between employee engagement and the variables of transactional leadership, autotelic personality, proactive personality, and extroversion were not significant (see Appendix N). Thus, the hypotheses (2, 4, 5, 7) proposing relationships between engagement and these independent variables are not supported.

6.5 Study II Discussion

Grounded in Social Exchange Theory (SET) and Leader-Member Exchange (LMX), a primary research objective was to examine the associations between the dependent variable (employee engagement) and two independent variables (leadership styles and personality attributes).

6.5.1 Leadership Styles

As expected, the results revealed that transformational leadership was positively related to employee engagement. This finding is consistent with the previous research reporting that transformational leadership has a direct impact on employee engagement (Babcock-Roberson and Strickland, 2010; Breevaart et al., 2014; Hansen et al., 2014; Popli and Rizvi, 2015; Zhu et al., 2009). Leaders with transformational competencies are effective in energizing their subordinates to perform beyond expectations. They inspire, enhance confidence, and clearly communicate the organization's mission and vision among their followers. Transformational leaders encourage their followers to adapt new methods in solving work related issues and challenges (Daft, 2015). Further, they listen to, teach, and coach their subordinates. They recognize their individual potentials to learn new knowledge and enhance their skills and abilities (Bass and Riggio, 2006). These leadership behaviors can be linked to engagement as engaged individuals are characterized by displaying high levels of energy, inspiration, and enthusiasm (Schaufeli et al., 2002; Witemeyer et al., 2013), passion (Zigarmi et al., 2009), willingness to reach the extra mile of performance (Macey and Schneider, 2008), and self-identification with performance and goal achievement (Shanmugam and Krishnaveni, 2012).

The regression results also revealed that transactional leadership has no relationship with employee engagement. As expected, the results revealed that the two aspects of management

by exception (passive and negative) showed no relationship effects with employee engagement. Further, although contingent reward correlated with employee engagement, it was not related to engagement when it is included in a regression nomological framework consisting of several variables (see appendix N). This means that other factors (transformational leadership, conscientiousness, and positive affect) are more significant in promoting employee engagement than contingent reward. This finding is inconsistent with the findings of prior research (e.g. Breevaart et al., 2014; Koyuncu et al., 2006) in which contingent reward, in addition to transformational leadership, was found a key predictor of employee engagement.

A possible explanation of this finding could be that contingent reward belongs to job resources, which relate to the work conditions; contingent reward is a main source of job satisfaction but has no direct predicting influence on employee engagement. Again, employee engagement is beyond the simple satisfaction of monetary and non-monetary incentives, feedback, and leaders' recognition of individual task accomplishment. Further, this finding supports Macey and Schneider's (2008) proposition of trait engagement, which states that engaged employees strive to solve challenging tasks and achieve difficult goals due to their personal characteristics and attributes. However, contingent rewards (recognition, feedback, and incentives), due to its significant correlation with engagement, remains an important job resource that helps in creating an engaging environment.

6.5.2 Personality Attributes

Initially, several studies (e.g. Bakker et al., 2012a; Handa and Gulati, 2014; Liao et al., 2012; Salanova et al., 2011) have reported significant relationships between certain personality attributes (e.g. Conscientiousness, extroversion, proactive personality, and positive affect) and employee engagement. The current findings support the hypotheses proposing that

conscientiousness and positive affect are related to employee engagement, but failed to support those proposing relationships to be found between employee engagement and three personality attributes (autotelic, extroversion, and proactive).

Employees high in conscientiousness reported high levels of engagement. This can be explained due to the organizational skills (planning, scheduling, coordinating resources, problem solving, and analysis-based decision-making), steadiness during hard times and challenges, ambition, achievement striving, and strong sense of responsibility engaged employees display while performing their roles (Kin et al., 2009). These characteristics of conscientiousness can be linked to employee engagement in that the latter connotes the meaning of challenge, goal identification, attention, ambition, and consistence in achieving the organizational goals (Macey and Schneider, 2008; Wefald et al., 2011).

Several scholars in the engagement literature (e.g. Macey and Schneider, 2008; Mäkikangas et al., 2013; Wefald et al., 2011) argued that individuals with trait positive affect, characterized by having high levels of activation, enthusiasm, and positive emotions towards the work environment, organization, and other business parties, are expected to be highly engaged. Although the studies that empirically examine the association between positive affect and engagement are limited (e.g. Salanova et al., 2011; Wefald et al., 2011), the current findings support the previous findings in that positive affect is positively related to employee engagement.

Although there is a theoretical linkage between extroversion (characterized by being energetic, active, and social), autotelic (characterized by being persistent through challenges, focused, determined to achieve goals), and proactive personality (characterized by being initiative, persistent, adaptive to change, and actionist), and employee engagement, the

results of this research did not support the proposed hypotheses. The contradiction between this finding and those found by previous research (e.g. Bakker et al., 2012b; Christian et al., 2011) can be possibly due to the cultural differences that exist within the New Zealand population; New Zealand is a multicultural country consisting of migrants who have different cultures, values, and beliefs. It is likely that these differences resulted in different perceptions of work relationships and environment, different interpretations of job requirements and standards, and different adaptation with business challenges Hofstede (1980). Due to these cultural differences, these findings should be reported with caution and using the current research model in cross-cultural studies with a homogeneous population is highly recommended for future research.

Overall, two possible factors, within person (positive affect personality and conscientiousness) and at the organizational level (transformational leadership), were found to be significantly related to employee engagement. These findings support Kahn's (1990) early theory of engagement in that individuals display different levels of engagement according to the surrounding environment. Further, the current findings support Macey and Schneider (2008), who proposed that engagement has both trait like and state like components. However, breaking the engagement construct into separate facets is still confusing as it blurs the issue and serves the ambiguity that has gone along with the meaning of the construct (Newman and Harrison, 2008). Engagement as a state is influenced by organizational factors, including leadership behaviours and availability of certain work conditions (e.g. autonomy, flexibility, communication, trust, job design) that help in creating an engaging environment. Engagement as a trait is determined by individuals' personality attributes that influence their willingness and decisions to exert high levels of energy,

activation, passion, attention, and persistence to solve work related challenges and contribute to the achievement of the organizational goals.

Further, these findings support Robinson et al.'s (2004) conceptualization of employee engagement, which states that engagement is a two-way relationship between the person and the organization. Notably, none of the main models of employee engagement (Kahn, 1990; and Schaufeli et al., 2002) have examined the impact of “person-organization interaction” and “person-organization fit” on employee engagement. In this way, this research moves beyond the existing frameworks of employee engagement by providing support and empirical evidence for the joint operation of leadership styles and certain personality attributes (conscientiousness and positive affect) in fostering employee engagement.

Chapter 7. Conclusion

7.1 Introduction

As discussed in the introductory chapters, the conceptualization of employee engagement has developed inconsistency in terms of its meaning, measurement tool, and predictors. Thus, the primary objectives of this research were to develop a new measurement tool and examine its two proposed antecedents. More specifically this research aimed to:

Develop a reliable and valid measure of employee engagement, consistent with a theoretically derived definition of engagement.

Explore the relationships between two potential antecedents (leadership styles and personality attributes) and employee engagement.

To achieve the first objective, it was essential to put forward a common language about the meaning of engagement and provide an operational definition of the term prior to developing the scale. To that end, an intensive review of the engagement literature was undertaken; the theoretical underpinnings that explained the mechanism of building employee engagement were analysed and the commonalities and contrasts between employee engagement and other related constructs (job involvement, job satisfaction, organizational commitment, and organizational citizenship) were examined. From this analysis, a working definition was introduced and, subsequently, the phase of developing the engagement scale commenced.

In developing the new engagement scale, the procedure included the following stages:

- i. creating an item pool derived from the main measures existing in the engagement literature,
- ii. sorting those items according to the themes they measure,

- iii. selecting and writing items that tap each aspect of the introduced definition, and
- iv. testing the reliability and discriminant validity of the scale amongst other well-established attitudinal constructs (organizational commitment, job involvement, and job satisfaction).

To achieve the second objective, the relationships between two known antecedents (leadership styles and personality attributes) and employee engagement were examined. The theoretical contribution, practical implications, research limitations, and recommendations for future research are detailed in the following sections.

7.2 Theoretical Contribution

As stated earlier, there are varying definitions of the construct and a lack of agreement regarding the theoretical underpinnings of employee engagement, which in turn present problems for both the measurement of engagement and its use when implementing and evaluating strategies aimed at building employee engagement. Such disagreements also raise questions about the reliability and validity of extant measures of engagement, and hence their value to both academics and practitioners. For instance, Kahn (1990) defined engagement in terms of individuals cognitive, emotional, and behavioral states during task performance (similar to Saks, 2006; Shuck and Wollard, 2010). Maslach and Leiter (1997) and Schaufeli et al. (2002) grounded their conceptualizations of employee engagement in burnout theory. Others have defined the concept of engagement as involvement, satisfaction, and organizational commitment (Harter et al., 2002), state, trait, and behaviour (Macey and Schneider, 2008), and work passion (Zigarmi et al., 2009). To address this issue, this research

critically examined the current approaches to defining and measuring employee engagement and introduced a new working definition and a new scale for employee engagement.

Saks' (2006) social exchange theory (SET), Robinson et al.'s (2004) notion of a two-way engagement relationship, and Macey and Schneider's (2008) proposition of state, trait, and behavioral engagement were found to provide the theoretical underpinnings essential to clearly define, measure, and identify the antecedents pertaining to engagement. As a result, a new working definition and a new reliable and valid measure of employee engagement have been introduced. For the purposes of this study, the following working definition was proposed: *"a multidimensional construct that refers to passionate, inspired, energetic, enthusiastic, persistent, focused, and emotionally positive individuals who harness their personal attributes, along with their cognitive and affective evaluations of job and organizational situations, to direct their task performance toward achieving organizational objectives"*.

Another important debate concerning the engagement construct has revolved around its dimensionality. For instance, several studies have reported inconsistent results regarding the factorial structure of the UWES (Schaufeli et al., 2001), as being the most widely used measure of employee engagement. The three-factor structure of UWES has been supported by some studies (e.g. Schaufeli et al., 2002; Schaufeli et al., 2006), while the findings of other studies (Viljevac et al., 2012; Wefald et al., 2012) failed to support its dimensionality. Thus, this research contributes to the theory of engagement by providing empirical evidence about the dimensionality of the engagement construct. Adding to the original factors of absorption, and dedication of Schaufeli et al. (2002), the current research revealed that the engagement construct comprised new factors. Specifically, task performance, in alignment with Newman

and Harrison (2008), positive emotions, persistence and discretionary effort, and identification were found to be additional components of the engagement construct.

The discriminant validity of the engagement construct amongst other well-established attitudinal constructs is another issue that exists in the engagement literature (Briner, 2014; Newman and Harrison, 2008). Thus, this research contributes to the theory of engagement by providing empirical evidence about the distinctiveness of employee engagement from those psychological constructs (job satisfaction, job involvement, and organizational commitment); although employee engagement shared some communalities with those constructs, they did not strongly overlap.

A variety of antecedents have been associated with employee engagement. For instance, several researchers (e.g. May et al., 2004; Rothmann and Welsh, 2013) have linked employee engagement to Kahn's (1990) three psychological conditions (meaningfulness, safety, and relatedness). Further, Schaufeli et al.'s (2002) job demands and job resources have been frequently associated to employee engagement in the engagement literature (Bakker et al., 2014; Kuntz and Roberts, 2014; Ram and Prabhakar, 2011). However, these variables relate more to work conditions needed to foster engagement rather than to the factors that explain the mechanism of how employees build engagement (Saks, 2006).

Furthermore, it is recognized that the practitioner perspective is certainly based on the assumption that engagement is something that can be changed, and by modifying the conditions under which work is offered. In other words, it is a state. And the bulk of the academic research on the construct to date also seems to be based on the assumption that it is a psychological state, even if it has been measured in ways inconsistent with this assumption. There is also sufficient evidence now to indicate that engagement is malleable

in response to changing circumstances (e.g. Christian et al., 2011; Kim, Kolb & Kim 2013), which is again consistent with a state approach.

However, this does not rule out the possibility that there are personality traits that predispose individuals to be more likely to become engaged under the right conditions, but as others have suggested these traits might best be thought of as antecedents to engagement rather than engagement per se. For instance, Zigarmi et al. (2009), from a social cognitive view, argued that the term engagement is a construct that denotes an interaction between individuals' inner forces (personal attributes, cognition) and external stimuli; individuals function in a triadic causality where their personal attributes, cognitions, and behavior interact with environmental conditions to generate their actions. From this perspective, this research contributes to the engagement body of knowledge by providing empirical evidence supporting the view that engagement is a construct consisting of some trait-like and some state-like components (Macey and Schneider, 2008). Further, these findings support the two-way relationship and person-situation interaction conceptualization of the engagement construct (Hoon-Song et al., 2012; Robinson, et al., 2004; Zhu et al., 2009; Zigarmi et al., 2009). Specifically, leadership style (transformational) and certain personality attributes (positive affect and conscientiousness) were found to be significantly related to employee engagement.

To the best of the researcher's knowledge, this research is the first to include autotelic personality in a nomological model of employee engagement. Although, the autotelic variable was not found to be statistically significant in association with employee engagement, this research provides an empirical attempt at testing Macey and Schneider's (2008) proposition of the association between autotelic personality and engagement.

However, this association needs to be retested in the future by conducting cross-cultural studies.

7.3 Practical Implications

Without conceptual clarity as to the meaning of employee engagement, we should not be surprised that differences in measurement persist, resulting in yet further ambiguities in research findings regarding its antecedents and outcomes. Such ambiguities, in turn, provide poor guidance to practitioners on how to best improve engagement levels among employees (Mone and London, 2010). The present research has several practical implications for HR and organizational development professionals. Specifically, these implications address issues related to measuring employee engagement, recruitment and selection, training and development, managing performance, and job design.

7.3.1 Measuring Employee Engagement

It is noteworthy to state that measuring employee engagement continues to be a confusing issue for HR professionals, organizational development specialists, and consultancy firms (Saks and Gruman, 2014). In the HR industry, each firm designs its own measure according to how their managers understand and interpret the meaning of the term. Without solid and clear theoretical underpinnings, those measures were found to be assessing other well-established constructs instead of measuring employee engagement itself (e.g. The Gallup Work Audit is a contemporary measure of job satisfaction). This has led to ineffective HR and management practices thought to enhance employees' levels of engagement and drive business goals (Saks and Gruman, 2014; Truss et al., 2014). Thus, this research provides a promising measurement tool as its reliability (internal consistency and test re-test reliability) and discriminant validity (its distinctiveness from other well-established attitudinal constructs) have been empirically tested and supported.

7.3.2 Recruitment and Selection

For HR practitioners, person-position fit and person-organization fit are important issues that require close attention when recruiting and selecting the right candidates (Cameron and Quinn, 2011; Gardner, Reithel, Coglisier, Walumbwa, and Foley, 2012; Memon, Salleh, and Baharom, 2015). The advertisement is a key indicator of the organizational culture. Thus, branding engagement when advertising for the vacant position is a critical practice essential to attract candidates with engagement qualities. Employment branding (engagement in this context) refers to communicating the fact that the organizational culture emphasizes creativity, innovation, problem solving, and goal-oriented performance (Gardner et al., 2012). Further, the advertisement should emphasize that the job description is inspiring and the job design includes autonomy, job enlargement (providing a variety of tasks), job rotation (periodically, asking employees to specialize in a certain aspect of the job), and task significance (providing meaningful tasks that are linked to clear goals), (Bakker et al., 2012b). For instance, providing web links in the advertisement or sharing videos via social media that display some daily experiences of existing employees and the work environment will result in having the organizational culture being fully communicated to candidates. Thus, the advertisement will be more effective in attracting candidates who possess engagement qualities (attitudes, cognition, and behaviors) to apply for the position, as their perceptions of person-organization fit will be enhanced (Bhatnagar, 2007).

In addition to those recruitment practices that can be used to attract candidates who have potential to exhibit engagement, the selection tests may have an impact on selecting the right employees. In addition to role-play, situational, and behavioral tests, testing the candidates' personality attributes might have a positive impact on selecting candidates who are expected to highly engage in the workplace. Consistent with prior research on employee engagement,

the current findings of this research reported significant relationships between conscientiousness and positive affect personalities, and employee engagement. Thus, including tests assessing these two personality attributes in the selection process is strongly recommended (Inceoglu and Warr, 2011).

Given that significant relationships were found between leadership behavior and employee engagement, one possible recommendation for organizations is to hire leaders with transformational skills and competencies; in addition to hiring employees with engagement traits, hiring transformational leaders will help foster an engaging environment in the workplace. In selecting transformational leaders, the selection tests (e.g. personality tests, tests of skills, abilities, and aptitudes, and situational or behavioral interviews) should include items/questions that reflect the key transformational qualities (e.g. change initiative, talent management, clarity of vision, values, and goals, motivating and inspiring followers, communicating organizational goals, and fostering autonomy and proactive behavior (Daft, 2015).

7.3.3 Training and Development

The results of the current research, in consistence with some conceptualizations of employee engagement, reported that employees' identification with organizational goals is a main domain of the engagement construct. Thus, designing a specific orientation program that focusses on communicating the organizational culture, mission, vision, and goals is seen important to enhance employees' awareness of the business context and how their role performance is linked to the achievement of the preferable outcomes. The onboarding process should not be limited to just a brief introduction of the organization's history, slogans, heroes, stories of success, policies, and procedures. It should contain formal and informal sessions that virtually clarify how different parts of the business fit together;

employees need to see an explicit coherence between their role performance and the achievement of the organizational goals (Combs, Liu, Hall and Ketchen, 2006; Daft, 2015). This can be attained by sharing real examples of how the organization supports innovative behaviors and sharing experiences of individuals making a difference in overcoming serious challenges and achieving the organizational goals.

As mentioned earlier, enhancing employees' awareness of business context is important to promoting engagement. This implies that employees should be equipped with analytical skills that help them proactively interpret the external business stimuli, identify threats, and adapt their performance to various competitive and complex business environments. Thus, designing and conducting formal and informal training programs that enhance their analytical skills is crucial. In addition to the training sessions that focus on how to do things, data analysis, critical and analytical thinking, problem solving, contextual thinking, and decision-making are key skills that need to be included in any structured or unstructured training and development programs (Eldridge and Nisar, 2006; Mone and London, 2010).

Due to the significant association found between transformational leadership behaviors and engagement, training supervisors and managers on how to inspire and motivate their subordinates is crucial in promoting employee engagement in the workplace. Specifically, leaders need to be trained on how to acquire and apply the four behaviors of transformational leadership (attributed and behavioral idealized influence, individual consideration, intellectual stimulation, and inspirational motivation). This will promote and enhance the engagement qualities (e.g. passion, autonomy, trust, focus, critical thinking, dependability, adaptability, goal identification, and innovative behavior) and will effectively create an engaging environment in the workplace (Mone and London, 2010).

Today, the term “talent management has received wide attention from strategic HR and training and development practitioners. Talent management is a series of business processes consisting of workforce planning, integrated practices of competency-based recruitment and selection, onboarding, training and development, succession planning, managing performance, and feedback and reward systems (Berger and Berger, 2011). As employee engagement refers to individuals’ investment of their energy, discretionary effort, knowledge and competencies, innovative behavior to achieve the desired goals (Macey and Schneider, 2008), talent management actions and practices can foster employee engagement. However, an effective and strategic implementation of those practices is challenging for managers. Leaders need to possess certain competencies (e.g. critical thinking, business awareness, customizing meaningful career paths, facilitating growth and development, managing change, empowerment, autonomy, and providing constructive feedback) in order to be able to enhance and direct the performance of the organization’s human capital towards achieving business success (Combs et al., 2006; Heger, 2007). Thus, enhancing leaders’ fundamental competencies of talent management should be a key objective of the organization’s leadership-training programs.

7.3.4 Performance Management

Managing employee performance is a critical HR function that if done effectively, the organization’s success and winning the competitive advantage will be enhanced (Cardy, 2004; Love and Singh, 2011). The typical process of performance management includes planning and establishing performance goals, coaching and ongoing feedback, appraising performance, reward and recognition (Mone and London, 2010). However, in the case of engagement, traditional performance management might not be fully effective in enhancing employee engagement and achieving the desired goals. Then, the issue is how these practices

can be positively executed in a manner that reinforces employee engagement in the workplace (Gruman, and Saks, 2011).

Defining clear goals and performance expectations is a key element of the performance management process (Cardy, 2004; Love and Singh, 2011). Engaged employees are characterized by their tendency of achieving organizational goals (Macey and Schneider, 2008). Therefore, an effective goal setting will enhance employees' meaningfulness of how their task performance can serve the achievement of organizational goals. This means leaders need to continuously monitor their subordinates' performance and provide them with frequent constructive feedback (Agrawal, 2015). Providing constructive and continuous feedback helps in creating a learning and development culture where employees are able to adapt their performance to the changing business environment during turbulent times. Employees take more responsibility in learning skills and acquiring competencies needed to adapt their performance with the new organizational objectives (Mone and London, 2010)

Evaluating performance is another critical issue in the case of employee engagement (Gruman and Saks, 2011; Mone and London, 2010). Engaged employees are characterized by their tendency to "go the extra mile" of performance and perform beyond the requirements stated in their job descriptions (Macey and Schneider, 2008). Thus, assessing their performance by using typical performance appraisal forms might affect individuals' perceptions of fairness and equity; the traditional appraisal forms will fail to provide a coherent evaluation of employees' authentic performance. Engaged employees display discretionary effort that might occur outside the scope of work. Further, they build a network of connections with other business stakeholders (e.g. customers, and suppliers) beyond normal working events and activities. Thus, these behaviors need to be recognized when designing the performance appraisal document; in addition to assessing the core dimensions

(knowledge, skills, and behaviors) of an employee's job description and person-specification, the appraisal document should include areas that reflect employee participation in extra work related events, the number of network connections, and the amount of work performed outside working hours. On certain occasions however, it is hard, if not possible, to evaluate employee performance outside the normal working hours due to the absence of clear observation. Thus, evaluating employees' performance according to their contribution to goal achievement can be a fair solution (Gruman and Saks, 2011; Mon end London, 2010). In addition, implementing a 360 degree feedback (a multi-rater feedback), when possible, is recommended to draw a complete picture about employees' connections with external stakeholders and their activities outside normal working schedules. Respectively, allocating constant rewards and recognizing outstanding performance according to accurate performance assessment will enhance employees' motivation, engagement, and perceptions of fairness and equity (Love and Singh, 2011; Maslach et al., 2001; Meng and Wu, 2015; Salimäki and Jämse'n, 2010).

In this context (effective management of employee performance), it is also essential to spot the light on the vital role leadership plays in enhancing engagement and driving employees' performance towards achieving the desired results. Drawing on the current definition of employee engagement, engaged employees are characterized by being innovative, initiative, passionate, and energetic. They seek to perform stimulating tasks and achieving challenging objectives. Thus, providing a variety of tasks and setting challenging goals will stimulate individuals to exert extra levels of energy, enthusiasm, and discretionary effort (Agrawal, 2015). As stated earlier, leaders with transformational leadership qualities are more effective in directing engaged employees. Transformational leaders are close enough to diagnose performance deviations, suggest corrective actions, provide constructive

feedback, provide the needed resources, and discuss the need to modify performance standards and goals due to changes in the business environment. They are also far enough to give employees the autonomy and discretion needed to rely on their competencies and judgment when performing tasks (Daft, 2015; Bass and Riggio, 2006).

Further, creating a climate of trust in the workplace is critical for leaders to manage their subordinates' performance and enhance their levels of engagement. Building a trusting environment provides employees with a greater sense of empowerment (assigning employees with more authority, responsibilities, decision-making power, and accountability, Grönfeldt and Strother, 2006). Engaged employees are characterized by being initiative and trying different ways to perform their job in a way that increases the possibilities of making success and achieving goals (Shanmugam and Krishnaveni, 2012; Witemeyer et al., 2013). This implies that they need to be trusted in their abilities of judgment, decision-making, and to be responsible and accountable for performing complex tasks and achieving challenging goals. Spillane (2006) stated that due to the interaction between leaders and members, individuals' trust in a leader and colleagues is enhanced and they tend to share their weaknesses and strengths. This will enable for more flexibility in exchanging roles, sharing knowledge, and distributing responsibilities and leadership tasks among groups working towards solving challenging tasks or projects. In this regard, the transformational leader is found to be successful in building trust and implementing empowerment in the organization (Daft, 2015). Thus, managers who display transformational leadership behaviors are more effective in driving employees' performance towards achieving the organizational goals.

7.3.5 Job Design

A well-designed job is an essential job characteristic that may enhance employee engagement in the workplace (Bakker et al., 2014). Job design refers to structuring, enacting, and

modifying job roles and tasks (Grant and Parker, 2009). However, job crafting (changing how an individual perform certain parts of a job, how he/she approaches works, or how he/she interacts with other stakeholders, Wrzesniewski and Dutton, 2001) can be an effective strategy that the engaged employee may follow to adapt their behavior to the changing job and business environments (Bakker et al., 2012b). According to Bakker et al. (2012b), job crafting implies increased autonomy, increased challenging tasks, and decreased obstructing cognitive and emotional job demands (e.g. stress). Engaged employees are characterized by being highly energetic, enthusiastic, persistent, and dedicated while trying to achieve challenging goals (Macey and Schneider, 2008). Thus, managers are recommended to redesign jobs in a way that provides autonomy, varied tasks, and challenging goals to positively create an engaging environment and foster employee engagement in the workplace (Agrawal, 2015; Inceoglu and Warr, 2011).

7.4 Limitations and Future Research

Drawing on the findings of the current research, several limitations and recommendations for future research should be noted. Initially, defining employee engagement and developing its measurement tool were the essential steps necessary towards testing employees' levels of engagement within a nomological framework. However, due to the cross-sectional nature of this research and being conducted in a single country (New Zealand), one possible limitation is that the reliability and validity of the newly developed engagement scale need to be further retested and reported. (MacKenzie, Podsakoff, and Podsakoff, 2011). Thus, future research is recommended to retest the reliability and discriminant validity of the instrument in multiple empirical settings (global) and across various industries and firm-sizes.

A future limitation of the current research is the generalizability of the findings resulting from testing the associations between the antecedents (leadership and personality attributes) and employee engagement. For example, extroversion and proactive personality were found to be related to employee engagement in the engagement literature (Bakker et al., 2012b; Liao et al., 2012). In contrast to prior research, the current findings of this research reported insignificant relationships between these two personality variables (extroversion and proactive) and employee engagement. This might be due to the cultural differences within the New Zealand population that might affect the participants' perceptions of the business environment. According to Hofstede (1980), the nation's culture, including its protocols and values, shapes people's behaviours and attitudes. This may explain why studies conducted under different cultures yielded different findings. Further, the small sample size, used in examining the associations between employee engagement and its antecedents, limits the generalizability of the findings. Although the researcher made every possible attempt to increase the participants' response rate in Study II (sending frequent reminding letters), only 106 responses were found valid. The larger the sample size is, the higher the statistical significance and generalizability of the findings would be (MacKenzie et al., 2011). Again, conducting cross-cultural studies with large sample sizes is recommended for future research to enhance the generalizability of the findings.

Along similar lines, the insignificant associations found between some personality attributes (authentic, proactive, and extroversion) and engagement can be due to not assessing some key moderating and mediating mechanisms. For instance, job resources and job demands have been found as key factors or organizational conditions essential for fostering engagement in the workplace (Bakker et al., 2014; Kuntz and Roberts, 2014; Saks, 2006; Schaufeli et al., 2002). Similarly, organizational culture is seen as an essential factor that

helps in creating an engaging environment. The ideal engagement culture refers to the one that clearly communicates its values (e.g. supportive organizational attitudes, innovation, and openness to new experience and knowledge among its employees (Arifin et al., 2014; Suharti and Sulyanto, 2012; Timms et al., 2015). Grounded in social exchange theory, organizational culture is expected to have a vital role in creating an engaging environment. As stated earlier, engagement is a result of the interaction between the organization and its employees (Robinson et al., 2004). Thus, individuals who receive enough support, trust, attention and resources from their organizations, are more likely to build positive attitudes and feel obligated to direct their performance towards achieving the organizational goals. This supports that the exchange principle explains the mechanism of how engagement is built in the workplace (Suharti and Sulyanto, 2012). Meanwhile, the association between job characteristics and perceived organizational support, and employee engagement have been supported by some empirical studies in the engagement literature (e.g. Sacks, 2006; Suharti and Sulyanto, 2012; Ram and Prabhakar 2011). Drawing on the above argument, future research is recommended to examine the possible moderating and mediating effect that organizational culture and job characteristics may have on the direct relationship between the antecedents of engagement (leadership and personality) and employee engagement.

Another limitation of the current research is that it does not assess the relationship between employee engagement and the potential organizational and business outcomes. For instance, employee engagement has been associated with several organizational outcomes such as employee performance, retention, turnover, customer satisfaction, and achieving organizational objectives (Alarcon and Edwards, 2011; Harter et al., 2002; Schaufeli and Bakker, 2004; Soane et al., 2012). Engaged employees are expected to display discretionary effort, persistence, innovative behavior when handling role and business based challenges in

turbulent times (Macey and Schneider, 2008; Saks and Gruman, 2014). Thus, using the current engagement scale to examine the relationship between employees' levels of engagement and organizational and business related consequences is recommended for future research.

7.5 Summary of findings

In response to the existing debates revolving around the meaning of employee engagement, this research contributes to the engagement body of knowledge by providing an operational definition of the construct and developing a reliable and valid measurement tool that contains items assessing each component of the proposed definition. This research also provides empirical evidence supporting the dimensionality of the engagement construct and proposes additional dimensions to be considered when measuring the construct. Further, these findings provide empirical evidence about the discriminant validity of employee engagement when it is compared to other well-established attitudinal constructs (job satisfaction, job involvement, organizational commitment).

While most engagement studies have heavily focused on linking employee engagement to organizational work conditions (e.g. job resources and job demands), this research provides empirical evidence demonstrating that employee engagement reflects a two-way relationship (Robinson et al., 2004) and it is an outcome of the person-organization interaction (Saks, 2006). Therefore, this research demonstrates support for the state-trait like nomological framework of employee engagement (Macey and Schneider, 2008); employee engagement is directly influenced by the interaction between certain personalities (conscientiousness and positive affect) and transformational leadership (an organizational factor).

Due to inconsistencies in defining and measuring employee engagement, the effectiveness of the HR interventions implemented to enhance employee engagement are questionable. Thus, the interpretations of the current findings provide HR and organizational development practitioners with more targeted interventions that are based on solid theoretical underpinnings and empirical findings. Specifically, this research provides practical recommendations on how to execute certain HR practices (recruitment and selection, training and development, performance management, job design) in a manner that fosters an engaging climate in the workplace and enhances employees' levels of engagement.

Finally, this research provides practical suggestions to be recognized in future research. Due to the insignificant relationships found between certain personality attributes (proactive, extroversion, and autotelic) and employee engagement, conducting longitudinal research on different cultural settings and larger sample sizes may strengthen the current findings or yield different results. Further, exploring the moderating and mediating effect certain organizational conditions (job characteristics, organizational support and culture) may have on the direct relationships between the antecedents (leadership and personality attributes) and employee engagement may provide a full picture about how employee engagement is formed and cultivated in complex work-environments.

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Appendix A: Items and themes of the existing measures of engagement

Maslach Burnout Inventory (MBI-GS) Maslach and Leiter (1997)	Untitled tool: a nine-item scale to measure the two components of engagement: attention and absorption Rothbard (2001)	Gallup Workplace Audit (GWA) Harter et al. (2002)	The Utrecht Engagement Scale (UWES) Schaufeli, Salanova, Gonzalez-Roma, and Bakker (2002)
<i>“Engagement is an energetic state in which one is dedicated to excellent performance of work and confident of one’s effectiveness” (Maslach and Leiter, 1997, p. 209).</i>	<i>Engagement is defined as the psychological presence and it consists of two main components: Attention and Absorption. Attention “refers to cognitive availability and the amount of time one spends thinking about a role”. Absorption “means being engrossed in a role and refers to the intensity of one’s focus on a role” (p. 656).</i>	<i>Engagement refers to “the individual’s involvement and satisfaction with as well as enthusiasm for work” (Harter et al., 2002, p. 269).</i>	<i>Engagement is defined as “a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption” (Schaufeli et al. 2002, p. 74).</i>
<ol style="list-style-type: none"> 1. I feel emotionally drained from my work (R). (emotional exhaustion) 2. I feel used up at the end of the work day (R). (emotional exhaustion) 3. I feel fatigued when I get up in the morning and have to face another day on the job (R). (emotional exhaustion) 	<ol style="list-style-type: none"> 1. I spend a lot of time thinking about my work (attention). 2. I focus a great deal of attention on my work (attention). 3. I concentrate a lot on my work (attention). 	<ol style="list-style-type: none"> 1. Do you know what is expected of you at work? (role clarity) 2. Do you have the materials and equipment you need to do your work right? (material resources) 3. At work, do you have the opportunity to do what you do best every day? (opportunity for skill development) 	<ol style="list-style-type: none"> 1. At work, I feel I am bursting with energy. (vigor) 2. I find the work that I do full of meaning and purpose. (Dedication) 3. Time flies when I am working. (absorption)

Appendix A: Items and themes of the existing measures of engagement (Continued)

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| 4. Working with people all day is really a strain for me (R). (emotional exhaustion) | 4. I pay a lot of attention to my work (attention). | 4. In the last seven days, have you received recognition or praise for doing good work? Social support positive feedback) | 4. At my job, I feel strong and vigorous. (vigor) |
| 5. I feel burned out from my work (R). (emotional exhaustion) | 5. When I am working, I often lose track of time (absorption). | 5. Does your supervisor, or someone at work, seem to care about you as a person? (Supervisor support) | 5. I am enthusiastic about my job. (Dedication) |
| 6. I feel frustrated from my job (R). (emotional exhaustion) | 6. I often get carried away by what I am working on (absorption). | 6. Is there someone at work who encourages your development? (coaching) | 6. When I am working, I forget everything else around me. (absorption) |
| 7. I feel I'm working too hard on my job (R). (emotional exhaustion) | 7. When I am working, I am completely engrossed by my work (absorption). | 7. At work, do your opinions seem to count? (voice) | 7. My job inspires me. (dedication) |
| 8. Working directly with people puts too much stress on me (R). (emotional exhaustion) | 8. When I am working, I am totally absorbed by it (absorption). | 8. Does the mission/purpose of your company make you feel your job is important? (meaningfulness) | 8. When I get up in the morning, I feel I like going to work. (vigor) |
| 9. I feel like I'm at the end of my rope (R). (emotional exhaustion) | 9. Nothing can distract me when I am working (absorption). | 9. Are your associates (fellow employees) committed to doing quality work? (quality culture) | 9. I feel happy when I am working intensely. (absorption) |
| 10. I feel I treat some recipients if they were impersonal objects (R). (depersonalization) | | 10. Do you have a best friend at work? (social support) | 10. I am proud on the work that I do. (dedication) |
| 11. I've become more callous toward people since I took this job (R). (depersonalization) | | 11. In the last six months, has someone at work talked to you about your progress? (learning opportunities) | 11. I am immersed in my work. (absorption) |
| 12. I worry that this job is hardening me emotionally (R). (depersonalization) | | 12. In the last year, have you had opportunities at work to learn and grow? | 12. I can continue working for very long periods at a time. (vigor) |
| 13. I don't really care what happens to some recipients (R). (depersonalization) | | | 13. To me, my job is challenging. (dedication) |

Appendix A: Items and themes of the existing measures of engagement (Continued)

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| 14. I feel recipients blame me for some of their problems (R).
(depersonalization) | 14. I get carried away when I am working. (absorption) |
| 15. I can easily understand how my recipients feel about things.
(personal accomplishment) | 15. At my job, I am very resilient, mentally. (vigor) |
| 16. I deal very effectively with the problems of my recipients.
(personal accomplishment) | 16. It is difficult to detach myself from my job. (absorption) |
| 17. I feel I'm positively influencing other people's lives through my work. (personal accomplishment) | 17. At my work, I always preserve, even when things do not go well.
(vigor) |
| 18. I feel very energetic. (personal accomplishment) | |
| 19. I can easily create a relaxed atmosphere with my recipients.
(personal accomplishment) | |
| 20. I feel exhilarated after working closely with my patients.
(personal accomplishment) | |
| 21. I have accomplished many worthwhile things in this job.
(personal accomplishment) | |
| 22. In my work, I deal with emotional problems very calmly. (personal accomplishment). | |

Appendix A: Items and themes of the existing measures of engagement (Continued)

Engagement Survey Towers Perrin (2003)	Untitled 13-item scale May, Gilson, and Harter, (2004)	A twelve-item scale that measures the 12 engagement statements of Institute Employment Studies (IES). Robinson, Perryman, and Hayday (2004)	Untitled six-item scale Peterson, Park, and Seligman (2005)
<i>“Engagement that involves both emotional and rational factors relating to work and the overall work experience. The emotional factors tie to people’s personal satisfaction and the sense of inspiration and affirmation they get from their work and from being part of their organization” (The Towers Perrin Talent Report, 2003, p. 4).</i>	<i>The tool measures the cognitive, emotional, and physical dimensions of Kahn’s definition of engagement</i>	<i>“A positive attitude held by the employee toward the organization and its values. An engaged employee is aware of the business context, works with colleagues to improve performance within the job for the benefit of the organization. The organization must work to nurture, maintain and grow engagement, which requires a two-way relationship between employer and employee” (Robinson et al., 2004, p. 3)</i>	<i>Engagement, pleasure, and meaning are the three orientations or factors that lead to life satisfaction and happiness.</i>
1. Really care about the future of my company	1. Performing my job is so absorbing that I forget about everything else (cognitive).	1. I speak highly of this organization to my friends.	1. Regardless of what I am doing, time passes very quickly.
2. Proud to work for my company	2. I often think about other things when performing my job (cognitive).	2. I would be happy for my friends and family to use this organization’s products/services.	2. I seek out situations that challenge my skills and abilities.
3. Sense of personal accomplishment from my job	3. I am rarely distracted when performing my job (cognitive).	3. This organization is known as a good employer.	3. Whether at work or play, I am usually “in a zone” and not conscious of myself.
4. Would say my company is a good place to work	4. Time passes quickly when I perform my job (cognitive).	4. This organization has a good reputation in general.	4. I am always very absorbed in what I do.

Appendix A: Items and themes of the existing measures of engagement (Continued)

5. Company inspires me to do my best work	5. I really put my heart into my job (emotional).	5. I am proud to tell others I am part of this organization.	5. In choosing what to do, I always take into account whether I can lose myself in it.
6. Understand how my unit/department contributes to company success	6. I get excited when I perform well in my job (emotional).	6. This organization really inspires the very best in me in the way of job performance.	6. I am rarely distracted by what is going on around me.
7. Understand how my role relates to company goals and objectives	7. I often feel emotionally attached from my job (emotional).	7. I find that my values and the organization's are very similar.	
8. Am personally motivated to help my company succeed	8. My own feelings are affected by how well I perform my job (emotional).	8. I always do more that is actually required.	
9. Am willing to put in a great deal of effort beyond what is normally expected	9. I exert a lot of energy performing my job (Physical).	9. I try to help others in this organization whenever I can.	
	10. I stay until the job is done (Physical).	10. I try to keep abreast of current development in my area.	
	11. I avoid working overtime whenever possible (Physical).	11. I volunteer to do things outside my job that contribute to the organization's objectives.	
	12. I take work home to do (Physical).	12. I frequently make suggestions to improve the work of my team/department/service.	
	13. I avoid working too hard (Physical).		

Appendix A: Items and themes of the existing measures of engagement (Continued)

Untitled tool: a five-item scale to measure job engagement and a six-item scale to measure organizational engagement. Saks (2006)	MSPM Engagement Scale The U.S. Merit Systems Protection Board (2008)	Untitled 18-item scale Rich, Lepine, and Crawford (2010)	Untitled toll: a 4-item scale Karsan (2011)
<i>"A distinct and unique construct that consists of cognitive, emotional, and behavioural components that are associated with individual role performance" (p. 602).</i>	<i>"Engagement is heightened connection between employees and their work, organization, or the people they work for or with. Engaged employees find personal meaning in their work, take pride in what they do and where they do it, and believe that their organization values them"</i>	<i>The tool measures the cognitive, emotional, and physical dimensions of Kahn's definition of engagement</i>	-----
1. I really "throw" myself into my job. 2. Sometimes I am so into my job that I lose track of time. 3. This job is all consuming; I am totally into it. 4. My mind often wanders and I think of other things when doing my job. (R) 5. I am highly engaged in this job. 6. Being a member of this organization is very captivating.	1. My agency is successful at accomplishing its mission. 2. My work unit produces high-quality products and services 3. The work I do is meaningful to me 4. I would recommend my agency as a place to work 5. Overall, I am satisfied with my supervisor. 6. Overall, I am satisfied with managers above my immediate supervisor.	1. I work with intensity on my job. (physical) 2. I exert all my full effort to my job. (physical) 3. I devote a lot of energy to my job. (physical) 4. I try my hardest to perform well in my job. (physical) 5. I strive as hard as I can to complete my job. (physical) 6. I exert a lot of energy to my job. (physical)	1. I am proud to work for my organisation. 2. Overall, I am extremely satisfied with my organisation as a place to work. 3. I would gladly refer a good friend or family. 4. I rarely think about looking for a new job with another organisation.

Appendix A: Items and themes of the existing measures of engagement (Continued)

7. One of the most exciting things for me is getting involved with things happening in this organization.	7. I know what is expected of me on the job.	7. I am enthusiastic in my job. (emotional)
8. I am really not into the “goings-on” in this organization (R)	8. My job makes good use of my skills and abilities	8. I feel energetic at my job. (emotional)
9. Being a member of this organization make me come “alive.”	9. I have the resources to do my job well	9. I am interested in my job. (emotional)
10. Being a member of this organization is exhilarating for me.	10. I have sufficient opportunities (such as challenging assignments or projects) to earn a high performance rating	10. I am proud on my job. (emotional)
11. I am highly engaged in this organization.	11. Recognition and rewards are based on performance in my work unit.	11. I feel positive about my job. (emotional)
	12. I am satisfied with the recognition and rewards I receive for my work	12. I am excited about my job. (emotional)
	13. I am given a real opportunity to improve my skills in my organization	13. At work, my mind is focused on my job. (cognitive)
	14. I am treated with respect at work	14. At work, I pay a lot of attention to my job. (cognitive)
	15. My opinions count at work	15. At work, I focus a great deal of attention on my job. (cognitive)
	16. A spirit of cooperation and teamwork exists in my work unit	16. At work, I am absorbed by my job. (cognitive)
		17. At work, I concentrate on my job. (cognitive)
		18. At work, I devote a lot of attention to my job. (cognitive)

Appendix A: Items and themes of the existing measures of engagement (Continued)

Employee Engagement Survey PricewaterhouseCoopers (PwC)	Untitled tool: 8-item scale developed for CitiSales by a vendor to measure the cognitive, emotional, and behavioral aspects of engagement. James, Mckechnie, and Swanberg (2011)	Untitled tool: a 4-item scale. Rivera, Fitzpatrick, and Boyle (2011)	Intellectual Social Affective Engagement Scale (ISA engagement Scale) Soane, Truss, Alfes, Shantz, Rees, and Gatenby (2012)
<i>“The extent to which employees have a desire to act and apply discretionary effort to drive business outcomes”</i>	-----	-----	<i>Intellectual engagement is “the extent to which one is intellectually absorbed in work”, affective engagement refers to “the extent to which one experiences a state of positive affect relating to one’s work role”, and social engagement refers to “the extent to which one is socially connected with the working environment and shares common values with colleagues” (p. 532).</i>
1. I would recommend the company to friends and family as a great place to work (advocacy).	1. It would take a lot to get me to leave CitiSales (cognitive).	1. I am inspired by my work place.	1. I focus hard on my work
2. I intend to stay with company for another 12 months (commitment).	2. I would like to be working for CitiSales one year from now (cognitive).	2. I am willing to invest discretionary effort to help the organization succeed.	2. I concentrate on my work
3. My colleagues are willing to go beyond what is expected for the success of company (discretionary effort).	3. Compared with other companies I know about, I think CitiSales is a great place to work (cognitive).	3. I am likely to recommend my employer to others.	3. I pay a lot of attention to my work
4. I am proud to work for the company (pride).	4. I really care about the future of CitiSales (emotional).	4. I am planning to work with the organization 3 years from now.	4. I share the same work values as my colleagues

Appendix A: Items and themes of the existing measures of engagement (Continued)

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| 5. My colleagues are passionate about providing exceptional customer service (achievement). | 5. I feel like I am an important part of CitiSales (emotional). | 5. I share the same work goals as my colleagues |
| 6. I understand how my job contributes to the success of the company (alignment). | 6. I feel like my work makes an important contribution to CitiSales' success (emotional). | 6. I share the same work attitudes as my colleagues |
| | 7. Would highly recommend CitiSales to a friend seeking employment (behavioural). | 7. I feel positive about my work |
| | 8. I am always willing to give extra effort to help CitiSales succeed (behavioural). | 8. I feel energetic in my work |
| | | 9. I am enthusiastic in my work |

Untitled 14-item scale that assess two dimensions of engagement (behavioral and felt engagement)

Stumpf, Tymon, and van Dam (2013)

The items were generated based on Macey and Schneider's (2008) propositions of state and behavioural engagement

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| 1. People are energized by the work that they do. | 2. They are enthusiastic about their work. | 3. Their work really interests them. | 4. The work that they do is very satisfying to them. |
| 5. Their work is personally fulfilling | 6. They often take extra initiative to get things done. | 7. They actively seek opportunities to contribute. | 8. They often put more effort into their job than is required to help the organization succeed. |
| 9. They are innovative in their thoughts and actions. | 10. They are resilient to setbacks in their work. | 11. Their expertise is relevant to a broad range of issues | 12. They often adjust their behavior to better serve the group. |

Appendix A: Items and themes of the existing measures of engagement (Continued)

13. Their work performance goes beyond expectations
14. They add great value to the group

Theme	Items
Energy	At work, I feel I am bursting with energy. At my job, I feel strong and vigorous. I can continue working for very long periods at a time. I feel energetic at my job. I feel fatigued when I get up in the morning and have to face another day on the job (R). I feel emotionally drained from my work (R). I feel used up at the end of the work day (R). I feel like I'm at the end of my rope (R). I feel very energetic. I feel burned out from my work (R). I feel energetic in my work. People are energized by the work that they do.
Attention and Concentration	I spend a lot of time thinking about my work. I focus a great deal of attention on my work. I concentrate a lot on my work. I pay a lot of attention to my work. At work, my mind is focused on my job. At work, I pay a lot of attention to my job. At work, I focus a great deal of attention on my job. At work, I concentrate on my job. At work, I devote a lot of attention to my job. I am rarely distracted by what is going on around me. At my job, I am very resilient, mentally. My mind often wanders and I think of other things when doing my job. I often think about other things when performing my job. I am rarely distracted when performing my job. I can easily understand how my recipients feel about things. I focus hard on my work. I concentrate on my work. I pay a lot of attention to my work.
Enthusiasm	I am enthusiastic about my job. When I get up in the morning, I feel I like going to work. I am enthusiastic in my job. I feel exhilarated after working closely with my patients. I am enthusiastic in my work. They are enthusiastic about their work.
Pride and Belongingness	I am proud on the work that I do. Proud to work for my company. I would recommend my agency as a place to work. Would say my company is a good place to work. My agency is successful at accomplishing its mission. My work unit produces high-quality products and services. I am likely to recommend my employer to others. Compared with other companies I know about, I think CitiSales is a great place to work. Would highly recommend CitiSales to a friend seeking employment. I would recommend the company to friends and family as a great place to work. I am proud to work for the company. I am proud to work for my organisation. I would gladly refer a good friend or family. Being a member of this organization is very captivating. Being a member of this organization make me come "alive". Being a member of this organization is exhilarating for me. I speak

Appendix A: Items and themes of the existing measures of engagement (Continued)

	highly of this organization to my friends. I would be happy for my friends and family to use this organization's products/services. This organization is known as a good employer. This organization has a good reputation in general. I am proud to tell others I am part of this organization. I am proud on my job.
Satisfaction	Do you have the materials and equipment you need to do your work right? At work, do you have the opportunity to do what you do best every day? In the last seven days, have you received recognition or praise for doing good work? In the last seven days, have you received recognition or praise for doing good work? Does your supervisor, or someone at work, seem to care about you as a person? Is there someone at work who encourages your development? Do you have a best friend at work? In the last six months, has someone at work talked to you about your progress? In the last year, have you had opportunities at work to learn and grow? Sense of personal accomplishment from my job. Overall, I am satisfied with my supervisor. Overall, I am satisfied with managers above my immediate supervisor. My job makes good use of my skills and abilities. I have the resources to do my job well. I have the resources to do my job well. I have sufficient opportunities (such as challenging assignments or projects) to earn a high performance rating. Recognition and rewards are based on performance in my work unit. I am satisfied with the recognition and rewards I receive for my work. I am given a real opportunity to improve my skills in my organization. I am treated with respect at work. Overall, I am extremely satisfied with my organisation as a place to work. The work that they do is very satisfying to them. Their work is personally fulfilling.
Commitment	Are your associates (fellow employees) committed to doing quality work? Am personally motivated to help my company succeed. Really care about the future of my company. I am planning to work with the organization 3 years from now. It would take a lot to get me to leave CitiSales. I would like to be working for CitiSales one year from now. I really care about the future of CitiSales. I intend to stay with company for another 12 months. I rarely think about looking for a new job with another organisation (R). I don't really care what happens to some recipients (R).
Absorption	When I am working, I often lose track of time. I often get carried away by what I am working on. When I am working, I am completely engrossed by my work. When I am working, I am totally absorbed by it. Nothing can distract me when I am working. Time flies when I am working. When I am working, I forget everything else around me. I feel happy when I am working intensely. I am immersed in my work. I get carried away when I am working. It is difficult to detach myself from my job. Regardless of what I am doing, time passes very quickly. At work, I am absorbed by my job. Whether at work or play, I am usually "in a zone" and not conscious of myself. I am always very absorbed in what I do. In choosing what to do, I always take into account whether I can lose myself in it. I really "throw" myself into my job. Sometimes I am so into my job that I lose track

Appendix A: Items and themes of the existing measures of engagement (Continued)

	<p>of time. This job is all consuming; I am totally into it. Performing my job is so absorbing that I forget about everything else. Time passes quickly when I perform my job. I really put my heart into my job. I often feel emotionally attached from my job. They are resilient to setbacks in their work.</p>
Inspiration	<p>My job inspires me. Company inspires me to do my best work. A spirit of cooperation and teamwork exists in my work unit. I am inspired by my work place. My colleagues are passionate about providing exceptional customer service. I am interested in my job. I am excited about my job. This organization really inspires the very best in me in the way of job performance. I get excited when I perform well in my job. Working with people all day is really a strain for me (R). I feel frustrated from my job (R). One of the most exciting things for me is getting involved with things happening in this organization. Working directly with people puts too much stress on me (R). Their work really interests them.</p>
Meaningfulness	<p>I find the work that I do full of meaning and purpose. Do you know what is expected of you at work? Does the mission/purpose of your company make you feel your job is important? Understand how my unit/department contributes to company success. Understand how my role relates to company goals and objectives. The work I do is meaningful to me. I know what is expected of me on the job. I feel like my work makes an important contribution to CitiSales' success. I understand how my job contributes to the success of the company. I feel positive about my job. I am really not into the "goings-on" in this organization (R). I find that my values and the organization's are very similar. I have accomplished many worthwhile things in this job. I feel like I am an important part of CitiSales.</p>
Persistence and discretionary effort (dedication)	<p>At my work, I always persevere, even when things do not go well. I seek out situations that challenge my skills and abilities. I am willing to invest discretionary effort to help the organization succeed. Am willing to put in a great deal of effort beyond what is normally expected. I am always willing to give extra effort to help CitiSales succeed. I work with intensity on my job. I exert all my full effort to my job. I devote a lot of energy to my job. I try my hardest to perform well in my job. I strive as hard as I can to complete my job. I exert a lot of energy to my job. To me, my job is challenging. I always do more that is actually required. I try to help others in this organization whenever I can. I try to keep abreast of current development in my area. I volunteer to do things outside my job that contribute to the organization's objectives. I frequently make suggestions to improve the work of my team/department/service. I exert a lot of energy performing my job. I stay until the job is done. I avoid working overtime whenever possible. I take work home to do. I avoid working too hard (Physical). I feel I'm working too hard on my job (R). I deal very effectively with the problems of my recipients. They often take extra initiative to get things done. They</p>

Appendix A: Items and themes of the existing measures of engagement (Continued)

	often put more effort into their job than is required to help the organization succeed. They are innovative in their thoughts and actions. Their work performance goes beyond expectations. They add great value to the group.
Emotionally Positive	My own feelings are affected by how well I perform my job. In my work, I deal with emotional problems very calmly. I worry that this job is hardening me emotionally (R). I feel recipients blame me for some of their problems (R). I feel I'm positively influencing other people's lives through my work. I feel I treat some recipients if they were impersonal objects. I've become more callous toward people since I took this job (R). I feel positive about my work. They actively seek opportunities to contribute.
Others	I am highly engaged in this job. I am highly engaged in this organization. I can easily create a relaxed atmosphere with my recipients. I share the same work values as my colleagues. I share the same work goals as my colleagues. I share the same work attitudes as my colleagues. Their expertise is relevant to a broad range of issues. They often adjust their behavior to better serve the group.

Appendix B: Study I survey



As explained in the invitation letter, your participation is beneficial to help the researcher obtain his Doctor of Philosophy. You might be indirectly and positively affected by the outcomes of the research. Employee engagement is linked to key individual and organizational outcomes. The organizational benefits will arise from providing HR practitioners with specific strategies and implications needed to enhance customer service, talent retention, recruitment and selection, and organizational productivity and effectiveness. The individual benefits will arise from identifying the characteristics of engaged people, the factors that affect their levels of engagement, and bringing their attention to the employers' new trends and practices in recruiting and selecting potentially engaged employees. You will receive a brief summary of the research findings upon your interest and providing an email address.

Kindly, complete the survey, attached to this information sheet.

Return the completed survey via the provided freepost reply envelope.

At the bottom of the last page of the survey, you are asked to participate in the second phase of data collection. Upon your willingness to participate and providing your preferable email address, you will receive an invitation letter explaining the purpose of collecting data for phase II and guiding you how to complete and return the attached survey.

Appendix B: Study I survey (continued)

Section A:

The following items indicate to what extent you are engaged at work. For each item, circle the number that best represents your appropriate response based on the following rating scale:

1- Never	2- Rarely	3- Sometimes	4- Very Often	5- Always
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1- I am enthusiastic in my job	1	2	3	4	5
2- When I get up in the morning, I feel I like going to work.	1	2	3	4	5
3- I am proud of the work that I do.	1	2	3	4	5
4- I speak highly of this organization to my friends.	1	2	3	4	5
5- I feel energetic at my work.	1	2	3	4	5
6- I can continue working for very long periods at a time.	1	2	3	4	5
7- I feel positive about my job.	1	2	3	4	5
8- I deal with emotional problems very calmly.	1	2	3	4	5
9- At work, I am passionate about my job.	1	2	3	4	5
10- I show a great deal of passion while performing tasks.	1	2	3	4	5
11- At work, my mind is focused on my job.	1	2	3	4	5
12- I spend a lot of time thinking about my work.	1	2	3	4	5
13- When I am working, I often lose track of time.	1	2	3	4	5
14- Performing my job is so absorbing that I forget about everything else.	1	2	3	4	5
15- This organization really inspires the very best in me in the way of job performance.	1	2	3	4	5
16- My job inspires me.	1	2	3	4	5
17- I find the work I do full of meaning and purpose.	1	2	3	4	5
18- I understand how my role relates to company goals and objectives.	1	2	3	4	5

Appendix B: Study I survey (continued)

19- I do my best to solve problems that arise in my job.	1	2	3	4	5
20- At work, I persist through challenges.	1	2	3	4	5
21- I look for innovative ways to do my job efficiently.	1	2	3	4	5
22- I am willing to put in a great deal of effort beyond what is normally expected.	1	2	3	4	5
23- I enjoy working toward achieving the organizational objectives.	1	2	3	4	5
24- I frequently make suggestions to improve the work of my department.	1	2	3	4	5
25- I fulfil the assigned responsibilities and duties defined in my job description.	1	2	3	4	5
26- I perform the tasks that are expected to meet performance requirements.	1	2	3	4	5
27- I participate in activities that will influence my performance evaluation.	1	2	3	4	5

Section B:

The following items indicate to what extent you are satisfied at work. For each item, circle the number that best represents your appropriate response based on the following rating scale:

1	2	3	4	5	6	7
Extremely Dissatisfied	Very Dissatisfied	Moderately Dissatisfied	Not Sure	Moderately Satisfied	Very Satisfied	Extremely Satisfied

1. The physical work conditions	1	2	3	4	5	6	7
2. The freedom to choose your own method of working	1	2	3	4	5	6	7
3. Your fellow workers	1	2	3	4	5	6	7
4. The recognition you get from good work	1	2	3	4	5	6	7
5. Your immediate boss	1	2	3	4	5	6	7
6. The amount of responsibility you are given	1	2	3	4	5	6	7
7. Your rate of pay	1	2	3	4	5	6	7
8. Your opportunity to use your abilities	1	2	3	4	5	6	7

Appendix B: Study I survey (continued)

9. Industrial relations between management and workers in your firm	1	2	3	4	5	6	7
10. Your chance of promotion	1	2	3	4	5	6	7
11. The way your firm is managed	1	2	3	4	5	6	7
12. The attention paid to suggestions you made	1	2	3	4	5	6	7
13. Your hours of work	1	2	3	4	5	6	7
14. The amount of variety in your job	1	2	3	4	5	6	7
15. Your job security	1	2	3	4	5	6	7

Section C:

The following items indicate to what extent you are committed to your organization. For each item, circle the number that best represents your appropriate response based on the following rating scale:

1	2	3	4	5	6	7
Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Moderately Agree	Strongly Agree

1. I would be very happy to spend the rest of my career with this organization	1	2	3	4	5	6	7
2. I enjoy discussing my organization with people outside it.	1	2	3	4	5	6	7
3. I really feel as if this organization's problems are my own.	1	2	3	4	5	6	7
4. I think that I could easily become as attached to another organization as I am with this one.	1	2	3	4	5	6	7
5. I do not feel like 'part of the family' at my organization.	1	2	3	4	5	6	7
6. I do not feel 'emotionally attached to this organization.	1	2	3	4	5	6	7
7. This organization has a great deal of personal meaning for me.	1	2	3	4	5	6	7
8. I do not feel a strong sense of belonging to my organization.	1	2	3	4	5	6	7
9. I am not afraid of what might happen if I quit my job without having another one lined up.	1	2	3	4	5	6	7

Appendix B: Study I survey (continued)

10. It would be very hard for me to leave my organization right now, even if I wanted to.	1	2	3	4	5	6	7
11. Too much in my life would be disrupted if I decided I wanted to leave my organization now.	1	2	3	4	5	6	7
12. It would not be too costly for me to leave my organization now.	1	2	3	4	5	6	7
13. Right now, staying with my organization is a matter of necessity as much as desire.	1	2	3	4	5	6	7
14. I feel that I have too few options to consider leaving this organization.	1	2	3	4	5	6	7
15. One of the few serious consequences of leaving this organization would be the scarcity of available alternatives.	1	2	3	4	5	6	7
16. One of the major reasons I continue to work for this organization is that leaving would require considerable personal sacrifice — another organization may not match the overall benefits I have here.	1	2	3	4	5	6	7
17. I think that people these days move from company to company too often.	1	2	3	4	5	6	7
18. I do not believe that a person must always be loyal to his or her organization.	1	2	3	4	5	6	7
19. Jumping from organization to organization does not seem at all unethical to me.	1	2	3	4	5	6	7
20. One of the major reasons I continue to work for this organization is that I believe that loyalty is important and therefore feel a sense of moral obligation to remain.	1	2	3	4	5	6	7
21. If I got another offer for a better job elsewhere, I would not feel it was right to leave my organization.	1	2	3	4	5	6	7
22. I was taught to believe in the value of remaining loyal to one organization.	1	2	3	4	5	6	7
23. Things were better in the days when people stayed with one organization for most of their careers.	1	2	3	4	5	6	7
24. I do not think that wanting to be a 'company man' or 'company woman' is sensible anymore.	1	2	3	4	5	6	7

Appendix B: Study I survey (continued)

Section D: Job Involvement Scale

The following items indicate to what extent you are involved at work. For each item, circle the number that best represents your appropriate response based on the following rating scale:

1. Strongly Disagree	2- Disagree	3- Neutral Agree	4- Agree	5- Strongly
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1- The major satisfaction in my life comes from my job.	1	2	3	4	5
2- The most important things that happen to me involve my work.	1	2	3	4	5
3- I'm really a perfectionist about my work.	1	2	3	4	5
4- I live, eat, and breathe my job.	1	2	3	4	5
5- I am very much involved personally in my work.	1	2	3	4	5
6- Most things in my life are more important than my work.	1	2	3	4	5

Section E:

This section asks general demographic questions. Please mark the appropriate box that represents your answer with (X) or fill in the space provided.

** Please note these are asked for statistical purposes only and are not intended to be shared with any party or to offend in any way.*

1. What is your gender? ☐ MALE ☐ FEMALE

2. How old are you? _____ YEARS

3. What is your job title? _____

Appendix B: Study I survey (continued)

4. What industry does your organization belong to?

- ☐ MANUFACTURING
- ☐ EDUCATION
- ☐ ELECTRONICS
- ☐ BANKING
- ☐ CONSTRUCTION
- ☐ MEDIA
- ☐ TRANSPORT
- ☐ TELECOMMUNICATION
- ☐ HOSPITALITY
- ☐ HEALTH CARE
- ☐ OTHERS, please specify, _____

5. How long have you been in your current job?
MONTHS

_____ YEARS _____

THANK YOU! You have reached the end of the survey.

- **Please use the postage-paid envelope to return the completed survey.**
- **If you like to receive a brief summary of the research findings, please fill in and sign the consent form (the last page of this survey).**
- **Would a future contact be possible to invite you to participate in the second phase? If yes, fill in and sign the consent form (the last page of this survey).**

Appendix C: Ethics Approval



AUTEC SECRETARIAT

26 August 2013

Keith Macky
Faculty of Business and Law

Dear Keith,

Re Ethics Application: **13/194 Employee engagement: Conceptualizing, measuring, and examining two key antecedents of the construct.**

Thank you for providing evidence as requested, which satisfies the points raised by the AUT University Ethics Committee (AUTEC).

Your ethics application has been approved for three years until 6 August 2016.

As part of the ethics approval process, you are required to submit the following to AUTEC:

- A brief annual progress report using form EA2, which is available online through <http://www.aut.ac.nz/researchethics>. When necessary this form may also be used to request an extension of the approval at least one month prior to its expiry on 6 August 2016;
- A brief report on the status of the project using form EA3, which is available online through <http://www.aut.ac.nz/researchethics>. This report is to be submitted either when the approval expires on 6 August 2016 or on completion of the project.

It is a condition of approval that AUTEC is notified of any adverse events or if the research does not commence. AUTEC approval needs to be sought for any alteration to the research, including any alteration of or addition to any documents that are provided to participants. You are responsible for ensuring that research undertaken under this approval occurs within the parameters outlined in the approved application.

AUTEC grants ethical approval only. If you require management approval from an institution or organisation for your research, then you will need to obtain this. If your research is undertaken within a jurisdiction outside New Zealand, you will need to make the arrangements necessary to meet the legal and ethical requirements that apply there.

To enable us to provide you with efficient service, please use the application number and study title in all correspondence with us. If you have any enquiries about this application, or anything else, please do contact us at ethics@aut.ac.nz.

All the very best with your research,

Kate O'Connor
Executive Secretary
Auckland University of Technology Ethics Committee

Cc: Omas Ababneh oababneh@aut.ac.nz

Appendix D: Participant information sheet

Participant Information Sheet



Date Information Sheet Produced: 10/09/2013

Project Title: Employee engagement: Conceptualizing, measuring, and examining two key antecedents of the construct

An Invitation

Greetings! My name is Omar Ababneh. I am currently completing a PhD degree in Human Resource Management at Auckland University of Technology. In fulfillment of the degree, I am required to conduct research. Toward this goal, I intend to conduct a study on employee engagement and its implications in the workplace.

The Electoral Roll was used to randomly select participants and obtain their home addresses. I am pleased to inform you that you have been selected to participate in my study. I ask to complete the questionnaire attached and answer all the questions as honestly and objectively as possible and within three weeks receiving this survey. Rest assured that all your responses will be treated as confidential and the privacy will be highly protected.

I need to stress here that your participation is voluntary. Should you feel uneasy about participating, you can always withdraw at any point of time. I hope that you are able to participate in this study.

What is the purpose of this research?

By successfully conducting this research, the researcher will fulfil the requirements of Doctor of Philosophy. Further, the research is intended to have both practical and theoretical benefits. The practical benefits will arise from providing HR practitioners with specific strategies and implications needed to enhance employee engagement and positively influence employees' effectiveness and efficiency of role performance. The theoretical benefit will be mainly in the form of developing an operational definition, constructing a reliable and valid measure, and proposing a new model or framework for employee engagement in order to help reduce the ambiguity revolving around the construct and provide the theoretical underpinnings for future research.

Appendix D: Participant information sheet (continued)

How was I identified and why am I being invited to participate in this research?

The targeted population is any individuals working in New Zealand regardless of their age, gender, occupation, experience, or location. Towards that end, the electronic version of the Electoral Roll (2012) was obtained to send the survey to the potential participants' home addresses.

What will happen in this research?

Kindly, complete the survey, attached to this information sheet, and return it via the provided freepost reply envelope. By completing and returning the survey, you indicate consent to participate in this research.

At the bottom of the last page of the survey, you are asked to participate in the second phase of data collection. Upon your willingness to participate and providing your preferable email address (by filling and signing the consent form), you will receive an email inviting you to participate, explaining the purpose of collecting data for phase II, and guiding you how to complete the attached survey.

By providing your email, you indicate consent to participate in phase II and you will be sent a brief summary of the research findings.

What are the benefits?

By participating in this research, you will help the researcher obtain his Doctor of Philosophy. Further, you might be indirectly and positively affected by the outcomes of the research as it is intended to have both practical and theoretical benefits. The practical benefits will arise from providing HR practitioners with specific strategies and implications needed to enhance employee engagement and positively influence employees' effectiveness and efficiency of role performance. The theoretical benefit will be mainly in the form of developing an operational definition, constructing a reliable and valid measure, and proposing a new model or framework for employee engagement in order to help in reducing the ambiguity revolving around the construct and providing theoretical underpinnings for future research.

How will my privacy be protected?

You won't be asked to reveal any personal or confidential information about your organization. Your privacy will be protected as it is guaranteed that your participation is

Appendix D: Participant information sheet (continued)

just for research purposes where confidentiality will be highly maintained. You do not need to provide your name or any information about your organization. The only personal information you will be asked to provide is your email addresses if you volunteer to participate in phase II and it will be highly confidential and won't be used for other purposes or shared with other researchers or parties.

What are the costs of participating in this research?

Twenty minutes of your time is all that needed to complete the survey.

How do I agree to participate in this research?

The survey includes a consent form to be completed and signed if you express your willingness to participate.

Will I receive feedback on the results of this research?

You will receive a brief summary of the research findings upon your interest and providing an email address.

What do I do if I have concerns about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, Associate Professor Keith Macky, Keith.macky@aut.ac.nz, 921 9999 ext 5035.

Concerns regarding the conduct of the research should be notified to the Acting Executive Secretary of AUTECH, Madeline Banda, ethics@aut.ac.nz, 921 9999 ext 8316.

Whom do I contact for further information about this research?

Researcher Contact Details:

PhD Candidate Omar Ababneh, oababneh@aut.ac.nz, 921 9999 ext 6976.

Project Supervisor Contact Details:

Associate Professor Keith Macky, Keith.macky@aut.ac.nz, 921 9999 ext 5035.

Approved by the Auckland University of Technology Ethics Committee on 26 August 2013, AUTECH Reference number 13/194

Appendix E: Consent form

CONSENT FORM



Research title: Employee engagement: Conceptualizing, measuring, and examining two key antecedents of the construct

Supervisors: Assoc. Professor Keith Macky
Assoc. Professor Candice Harris

Researcher: Omar Ababneh

By signing below, you are agreeing that:

- You have read and understood the Participant Information Sheet
- Questions about your participation in this study have been answered satisfactorily
- You are aware of the potential risks (if any)
- You are taking part in this research study voluntarily (without coercion).
- You are providing your email to participate in Phase II voluntarily (without coercion)

Participant's Name:

Participant's email (if appropriate):

Participant's signature:

Date/...../.....

Contact me at (email address): oababneh@aut.ac.nz

Approved by the Auckland University of Technology Ethics Committee on 26 August 2013 AUTECH Reference number 13/194

Appendix F: Communalities between the 27 items of engagement scale

Communalities between the 27 Items of The Engagement Scale

	Initial	Extraction
I am enthusiastic in my job	.64	.64
When I get up in the morning, I feel I like going to work	.54	.52
I am proud of the work that I do	.53	.54
I speak highly of this organization to my friends	.56	.58
I feel energetic at my work	.59	.59
I feel positive about my job	.67	.71
At work, I am passionate about my job	.71	.72
I show a great deal of passion while performing tasks	.62	.63
At work, my mind is focused on my job	.35	.35
I spend a lot of time thinking about my work	.35	.36
When I am working, I often lose track of time	.50	.61
Performing my job is so absorbing that I forget about everything else	.53	.68
This organization really inspires the very best in me in the way of job performance	.62	.67
My job inspires me	.67	.64
I find the work I do full of meaning and purpose	.56	.50
I understand how my role relates to company goals and objectives	.44	.41
I do my best to solve problems that arise in my job	.55	.71
At work, I persist through challenges	.55	.64
I look for innovative ways to do my job efficiently	.53	.62
I am willing to put in a great deal of effort beyond what is normally expected	.54	.58
I enjoy working toward achieving the organizational objectives	.59	.64
I fulfil the assigned responsibilities and duties defined in my job description	.61	.74
I perform the tasks that are expected to meet performance requirements	.60	.76
I can continue working for very long periods at a time	.35	.31
I deal with emotional problems very calmly	.21	.20
I frequently make suggestions to improve the work of my department	.20	.19
I participate in activities that will influence my performance evaluation	.33	.34

Note. Extraction Method: Principal Axis Factoring

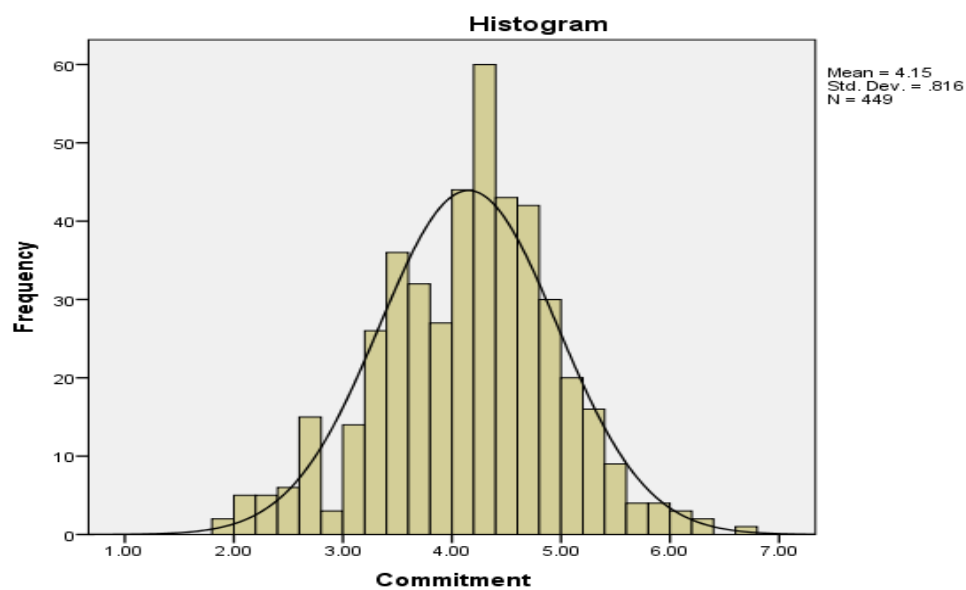
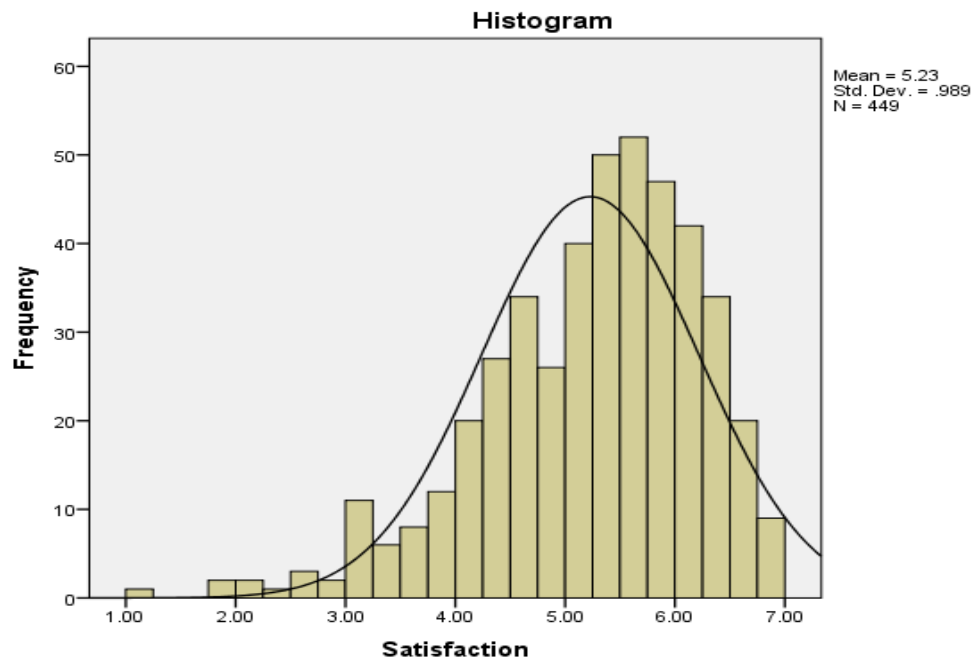
Appendix G: The Pattern Matrix of the 27item engagement scale: 3-factor solution

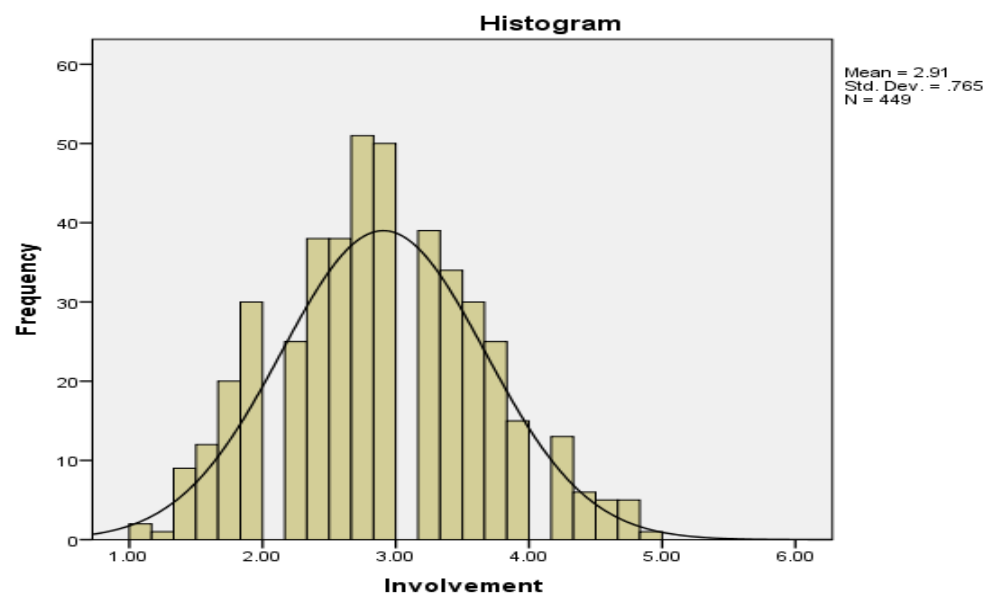
The Pattern Matrix of the 27item engagement scale: 3-factor solution

	Factor		
	1	2	3
I am enthusiastic in my job	.70	.03	.11
When I get up in the morning, I feel I like going to work	.65	-.08	.14
I am proud of the work that I do	.56	.20	.04
I speak highly of this organization to my friends	.77	-.03	-.19
I feel energetic at my work	.65	.05	.10
I can continue working for very long periods at a time	.20	.19	.29
I feel positive about my job	.86	-.06	.01
I deal with emotional problems very calmly	.16	.26	.00
At work, I am passionate about my job	.68	.09	.13
I show a great deal of passion while performing tasks	.52	.16	.16
At work, my mind is focused on my job	.18	.20	.29
I spend a lot of time thinking about my work	.05	.11	.51
When I am working, I often lose track of time	.02	-.05	.70
Performing my job is so absorbing that I forget about everything else	-.02	-.01	.79
This organization really inspires the very best in me in the way of job performance	.77	-.07	-.07
My job inspires me	.72	-.09	.23
I find the work I do full of meaning and purpose	.63	-.02	.13
I understand how my role relates to company goals and objectives	.46	.16	-.07
I do my best to solve problems that arise in my job	.01	.68	.00
At work, I persist through challenges	-.15	.77	.08
I look for innovative ways to do my job efficiently	.01	.58	.17
I am willing to put in a great deal of effort beyond what is normally expected	.16	.38	.33
I enjoy working toward achieving the organizational objectives	.61	.17	-.05
I frequently make suggestions to improve the work of my department	.13	.19	.06
I fulfil the assigned responsibilities and duties defined in my job description	.01	.73	-.08
I perform the tasks that are expected to meet performance requirements	-.01	.70	-.05
I participate in activities that will influence my performance evaluation	.17	.41	.00

Note: Principal axis extraction with direct Oblimin rotation; Item cross-loadings above .4 are indicated in boldface.

Appendix H: The normality histograms for the attitudinal constructs





Appendix I: The rotated factor matrix for employee engagement and the other attitudinal constructs

The Rotated Factor Matrix of Employee Engagement and the other Attitudinal Construct

	Factor												
	1	2	3	4	5	6	7	8	9	10	11	12	13
The attention paid to suggestions you made	.77	.12	-.01	.08	.02	.14	.07	.03	.00	.06	.07	-.05	.01
The way your firm is managed	.77	.10	-.01	.01	.07	.20	.04	-.03	.01	.07	.19	-.19	.01
Your immediate boss	.74	.09	.00	.00	.08	.09	-.06	.09	-.01	-.02	-.07	-.07	-.05
The recognition you get from good work	.74	.22	-.00	.06	.05	.09	-.07	-.03	-.06	-.01	-.03	-.06	-.01
Industrial relations between management and workers in your firm	.73	.05	-.04	-.01	.06	.13	.12	-.00	.05	.02	.07	-.18	-.04
Your opportunity to use your abilities	.66	.29	-.02	.09	-.03	.00	.02	.06	.08	.04	-.02	.27	.09
I speak highly of this organization to my friends	.64	.34	-.04	.02	.05	.21	.03	-.00	-.01	.06	.28	-.03	-.06
Your chance of promotion	.63	.16	-.12	.05	.02	.06	.08	-.02	.11	.02	-.03	-.07	.10
This organization really inspires the very best in me in the way of job performance	.62	.36	.07	.13	.15	.21	.02	.05	.06	.16	.16	-.12	-.00
The amount of responsibility you are given	.59	.15	-.02	.10	.02	-.04	.09	.15	.00	.04	-.06	.22	.08
The freedom to choose your own method of working	.56	.26	-.01	.03	.12	.04	.11	.01	.02	.01	-.06	.25	-.03
I would be very happy to spend the rest of my career with this organization	.51	.30	.14	.04	.22	.25	-.02	.06	.00	.15	.18	.24	-.00
I enjoy discussing my organization with people outside it	.50	.35	-.06	.08	.20	.21	.06	-.06	.00	.01	.37	.08	-.04
This organization has a great deal of personal meaning for me	.48	.33	.02	.15	.17	.29	.11	-.01	.06	.10	.31	.12	.02

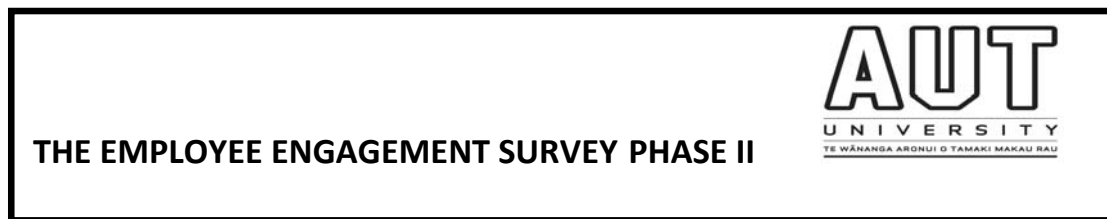
The physical work conditions	.46	.17	-.02	.01	.04	.01	.03	.07	.00	.09	.03	.08	-.03
Your job security	.46	.24	-.12	.06	.12	.16	.02	.14	.02	-.10	.01	.17	.05
Your rate of pay	.45	.03	-.11	.09	.03	.05	.01	-.03	.11	.01	-.16	.12	.16
The amount of variety in your job	.45	.35	-.02	.14	-.00	.08	.08	.00	.15	.04	.08	.42	.00
I enjoy working toward achieving the organizational objectives	.42	.42	-.00	.12	.13	.08	.22	.08	.05	.18	.23	-.12	-.03
Your fellow workers	.41	.06	-.09	-.01	-.00	-.03	.07	.02	.02	.03	.05	.16	-.01
I really feel as if this organization's problems are my own	.40	.08	-.00	.22	.19	.23	.12	-.05	.16	.03	.40	.03	.13
I understand how my role relates to company goals and objectives	.39	.26	-.03	.08	.02	.07	.19	.09	.04	.12	.27	-.11	.04
Your hours of work	.32	.12	-.12	-.10	.11	.05	-.01	.01	-.02	-.00	-.11	.27	-.01
At work, I am passionate about my job	.22	.75	-.05	.13	.05	.03	.15	.09	.05	.06	.06	.07	.06
I show a great deal of passion while performing tasks	.10	.71	-.06	.11	.06	-.00	.22	.05	.04	.04	.05	.01	.03
I am enthusiastic in my job	.26	.71	-.02	.13	.04	.08	.09	.10	.09	.08	-.06	-.00	-.00
I feel positive about my job	.42	.69	-.03	.09	.06	.16	.01	.06	.06	-.02	.05	.06	-.02
I feel energetic at my work	.24	.67	-.04	.09	.09	.05	.15	.03	.07	-.04	-.01	-.03	-.05
My job inspires me	.30	.66	-.04	.17	.07	.12	.03	.04	.22	.12	.06	-.00	.07
I find the work I do full of meaning and purpose	.19	.65	-.06	.06	-.02	.09	.03	.06	.10	.09	.12	.17	.10
I am proud of the work that I do	.20	.64	-.04	.09	.02	.02	.19	.15	.00	.10	.01	.06	-.02
When I get up in the morning, I feel I like going to work	.25	.61	-.00	.17	.06	.13	.00	.04	.09	.01	-.10	-.04	-.03
One of the few serious consequences of leaving this organization would be the scarcity of available alternatives	-.12	-.09	.79	-.05	.04	-.09	-.03	.05	.01	-.01	.05	-.02	-.12
I feel that I have too few options to consider leaving this organization	-.15	-.11	.77	.01	.04	-.09	-.06	-.02	-.01	-.06	.05	-.05	-.08
Right now, staying with my organization is a matter of necessity as much as desire	-.10	-.13	.67	.05	.05	-.12	-.04	-.03	.01	-.07	-.04	-.05	.09

One of the major reasons I continue to work for this organization is that leaving would require considerable personal sacrifice — another organization may not match the overall benefits I have here	.03	-.01	.66	.02	.24	.04	.03	-.01	-.00	-.04	-.00	-.04	.03
Too much in my life would be disrupted if I decided I wanted to leave my organization now	.04	.03	.63	.01	.14	.04	-.01	-.05	-.02	-.04	.03	.05	.50
It would be very hard for me to leave my organization right now, even if I wanted to	.09	.07	.54	.03	.17	.05	-.05	.00	.04	.06	.03	.01	.51
I am not afraid of what might happen if I quit my job without having another one lined up (R)	-.11	.02	.39	.06	-.09	.18	-.01	-.04	-.07	.12	-.10	.11	.02
I live, eat, and breathe my job	.04	.14	.04	.77	.03	.07	.10	-.01	.13	.07	.08	-.07	.12
The most important things that happen to me involve my work	.10	.18	.06	.75	.12	.10	-.08	-.06	.04	-.01	-.08	.01	-.06
The major satisfaction in my life comes from my job	.15	.31	.09	.67	.16	.03	-.07	.04	.11	.01	-.03	.00	-.05
I am very much involved personally in my work	.10	.25	-.04	.57	.07	.03	.18	-.01	.09	.07	.19	.12	-.01
I'm really a perfectionist about my work	.04	.13	-.03	.23	.10	-.06	.21	.20	.10	.11	-.00	-.01	.10
I was taught to believe in the value of remaining loyal to one organization	.07	.06	-.02	.11	.70	.05	.08	-.04	.01	.16	-.04	.03	-.06
Things were better in the days when people stayed with one organization for most of their careers	-.08	.02	.13	.09	.63	-.03	-.02	.01	-.07	.03	.00	.00	-.06
One of the major reasons I continue to work for this organization is that I believe that loyalty is important and therefore feel a sense of moral obligation to remain	.24	.13	.09	.09	.58	.09	.06	.03	.05	.18	.14	-.03	.01
If I got another offer for a better job elsewhere, I would not feel it was right to leave my organization	.24	.06	.07	.03	.50	.15	-.02	-.02	.10	.01	.01	-.03	.14
I think that people these days move from company to company too often	.09	.04	.14	.03	.47	-.00	-.06	.02	.04	.11	.02	.06	.13

I do not feel 'emotionally attached' to this organization (R)	.23	.19	-.06	.13	.10	.72	-.01	.02	.03	.13	.11	.06	.01
I do not feel a strong sense of belonging to my organization (R)	.30	.15	-.00	.03	.07	.68	.01	-.02	.04	.12	.01	-.02	.02
I do not feel like 'part of the family' at my organization (R)	.34	.10	-.10	.04	.07	.62	-.00	.05	.05	.08	.00	-.01	-.00
It wouldn't be too costly for me to leave my organization now (R)	-.00	.04	.22	.07	-.11	.24	.01	-.14	-.00	.20	-.09	.03	-.02
I think that I could easily become as attached to another organization as I am with this one (R)	.08	.00	.07	-.01	.19	.22	-.02	-.00	-.07	.13	.12	.21	.12
At work, I persist through challenges	.10	.15	-.03	.01	-.00	-.00	.74	.22	.12	.00	-.00	-.02	.00
I do my best to solve problems that arise in my job	.17	.21	-.02	.02	-.01	.03	.72	.17	.04	.01	.08	.01	-.04
I look for innovative ways to do my job efficiently	.04	.35	-.07	.05	.00	-.02	.62	.08	.07	.03	-.00	.05	.00
I perform the tasks that are expected to meet performance requirements	.11	.23	-.05	-.03	-.00	.01	.26	.77	.05	-.01	-.01	.01	.00
I fulfil the assigned responsibilities and duties defined in my job description	.13	.25	-.04	-.02	-.02	.01	.29	.74	.02	.01	.00	.01	-.04
When I am working, I often lose track of time	.12	.22	.00	.16	.03	.03	.11	.02	.77	.00	-.00	-.00	-.01
Performing my job is so absorbing that I forget about everything else	.04	.26	-.02	.19	.04	.04	.13	.07	.69	-.00	.05	.02	.03
Jumping from organization to organization does not seem at all unethical to me (R)	.07	.00	.00	.06	.14	.09	.00	.03	.00	.65	-.00	-.00	-.06
I do not believe that a person must always be loyal to his or her organization (R)	.07	.15	-.01	.06	.16	.12	.08	.00	-.01	.59	.00	.03	.09
I do not think that wanting to be a 'company man' or 'company woman' is sensible anymore (R)	.11	.12	-.09	-.03	.20	.09	-.02	-.02	.02	.36	.09	.00	.00

Note. N = 449; Principal axis with Varimax rotation; Item cross-loadings above .3 are indicated in boldface.

Appendix J: Study II Survey



Section A:

The following items indicate to what extent you are engaged at work. For each item, circle the number that best represents your appropriate response based on the following rating scale:

	1- Never	2- Rarely	3-Sometimes	4- Very Often	5- Always
1- I am enthusiastic in my job	1	2	3	4	5
2- When I get up in the morning, I feel I like going to work.	1	2	3	4	5
3- I am proud of the work that I do.	1	2	3	4	5
4- I speak highly of this organization to my friends.	1	2	3	4	5
5- I feel energetic at my work.	1	2	3	4	5
6- I feel positive about my job.	1	2	3	4	5
7- At work, I am passionate about my job.	1	2	3	4	5
8- I show a great deal of passion while performing tasks.	1	2	3	4	5
9- When I am working, I often lose track of time.	1	2	3	4	5
10- Performing my job is so absorbing that I forget about everything else.	1	2	3	4	5

Appendix J: Study II Survey (Continued)

11- This organization really inspires the very best in me in the way of job performance.	1	2	3	4	5
12- My job inspires me.	1	2	3	4	5
13- I find the work I do full of meaning and purpose.	1	2	3	4	5
14- I understand how my role relates to company goals and objectives.	1	2	3	4	5
15- I do my best to solve problems that arise in my job.	1	2	3	4	5
16- At work, I persist through challenges.	1	2	3	4	5
17- I look for innovative ways to do my job efficiently.	1	2	3	4	5
18- I enjoy working toward achieving the organizational objectives.	1	2	3	4	5
19- I fulfil the assigned responsibilities and duties defined in my job description.	1	2	3	4	5
20- I perform the tasks that are expected to meet performance requirements.	1	2	3	4	5

Section B:

The following items indicate how often your immediate supervisor displays the described behaviors. For each item, circle the number that best represents your appropriate response based on the following rating scale:

1- Never	2- Rarely	3- Sometimes	4- Very Often	5- Always
-----------------	------------------	---------------------	----------------------	------------------

1. My supervisor instills pride in me for being associated with him/her.	1	2	3	4	5
2. My supervisor goes beyond self-interest for the good of the group.	1	2	3	4	5
3. My supervisor acts in ways that builds my respect.	1	2	3	4	5
4. My supervisor displays a sense of power and confidence.	1	2	3	4	5

Appendix J: Study II Survey (Continued)

5. My supervisor talks about his/her most important values and believes.	1	2	3	4	5
6. My supervisor specifies the importance of having a strong sense of purpose.	1	2	3	4	5
7. My supervisor considers the moral and ethical consequences of decisions.	1	2	3	4	5
8. My supervisor emphasizes the importance of having a collective sense of mission.	1	2	3	4	5
9. My supervisor spends time teaching and coaching.	1	2	3	4	5
10. My supervisor treats me as an individual rather than just as a member of a group.	1	2	3	4	5
11. My supervisor considers me as having different needs, abilities, and aspirations from others.	1	2	3	4	5
12. My supervisor helps me to develop my strengths.	1	2	3	4	5
13. My supervisor re-examines critical assumptions to question whether they are appropriate.	1	2	3	4	5
14. My supervisor seeks differing perspectives when solving problems.	1	2	3	4	5
15. My supervisor gets me to look at problems from many different angles.	1	2	3	4	5
16. My supervisor suggests new ways of looking at how to complete assignments.	1	2	3	4	5
17. My supervisor talks optimistically about the future.	1	2	3	4	5
18. My supervisor talks enthusiastically about what needs to be accomplished.	1	2	3	4	5
19. My supervisor expresses confidence that goals will be achieved.	1	2	3	4	5
20. My supervisor articulates a compelling vision of the future.	1	2	3	4	5

Appendix J: Study II Survey (Continued)

21. My supervisor keeps track of all mistakes.	1	2	3	4	5
22. My supervisor directs my attention toward failures to meet standards.	1	2	3	4	5
23. My supervisor focuses attention on irregularities, mistakes, exceptions, and deviations from standards.	1	2	3	4	5
24. My supervisor concentrates his/her full attention on dealing with mistakes, complaints and failures.	1	2	3	4	5
25. My supervisor fails to interfere until problems become serious.	1	2	3	4	5
26. My supervisor waits for things to go wrong before taking action.	1	2	3	4	5
27. My supervisor shows that he/she is a firm believer in "if it ain't broke, don't fix it".	1	2	3	4	5
28. My supervisor demonstrates that problems must become chronic before taking action.	1	2	3	4	5
29. My supervisor provides me with assistance in exchange for my efforts.	1	2	3	4	5
30. My supervisor discusses in specific terms who is responsible for achieving performance targets.	1	2	3	4	5
31. My supervisor makes clear what one expects to receive when performance goals are achieved.	1	2	3	4	5
32. My supervisor expresses satisfaction when I meet expectations.	1	2	3	4	5

Appendix J: Study II Survey (Continued)

Section C:

The following items are intended to describe your personality attributes. For each item, circle the number that best represents your appropriate response based on the following rating scale:

	1- Never	2- Rarely	3- Sometimes	4- Very Often	5- Always
1. I don't like to waste my time.	1	2	3	4	5
2. I keep my belongings neat and clean.	1	2	3	4	5
3. I laugh easily.	1	2	3	4	5
4. I am pretty good about pacing myself so as to get things done on time.	1	2	3	4	5
5. I don't consider myself especially "light hearted".	1	2	3	4	5
6. I am not a very methodical person.	1	2	3	4	5
7. I really enjoy talking to people.	1	2	3	4	5
8. I try to perform all the tasks assigned to me conscientiously.	1	2	3	4	5
9. I like to be where the action is.	1	2	3	4	5
10. I have a clear set of goals and work toward them in an ordinary fashion.	1	2	3	4	5
11. I usually prefer to do things alone.	1	2	3	4	5
12. I waste a lot of time before settling down to work.	1	2	3	4	5
13. I often feel as if I am bursting with energy.	1	2	3	4	5

Appendix J: Study II Survey (Continued)

14. I work hard to accomplish my goals.	1	2	3	4	5
15. I am cheerful, high-spirited person.	1	2	3	4	5
16. When I make a commitment, I can be always counted on to follow through.	1	2	3	4	5
17. I am not a cheerful optimist.	1	2	3	4	5
18. Sometimes, I am not as dependable or reliable as I should be.	1	2	3	4	5
19. My life is fast-paced.	1	2	3	4	5
20. I am a productive person who always gets the job done.	1	2	3	4	5
21. I am a very active person.	1	2	3	4	5
22. I never seem to be able to get organized.	1	2	3	4	5
23. I would rather go my own way than be a leader to others.	1	2	3	4	5
24. I strive for excellence in everything I do.	1	2	3	4	5

Section D:

The following items are intended to describe your personality attributes. For each item, circle the number that best represents your appropriate response based on the following rating scale:

1- Not at All 2- A Little 3- Moderately 4- Quite a Bit 5- Extremely
--

1. To what extent do you generally feel inspired?	1	2	3	4	5
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2. To what extent do you generally feel enthusiastic?	1	2	3	4	5
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Appendix J: Study II Survey (Continued)

3. To what extent do you generally feel proud?	1	2	3	4	5
4. To what extent do you generally feel attentive?	1	2	3	4	5
5. To what extent do you generally feel active?	1	2	3	4	5
6. To what extent do you generally feel determined?	1	2	3	4	5

Section E:

The following items are intended to describe your personality attributes. For each item, circle the number that best represents your appropriate response based on the following rating scale:

1- Never	2- Rarely	3- Sometimes	4- Very Often	5- Always
-----------------	------------------	---------------------	----------------------	------------------

1. I look for better ways to do things	1	2	3	4	5
2. I intend to let others take the initiative to start new projects.	1	2	3	4	5
3. Wherever I have been, I have been a powerful force for constructive change.	1	2	3	4	5
4. I enjoy facing and overcoming obstacles to my idea.	1	2	3	4	5
5. I love being a champion for my ideas, even against others' opposition.	1	2	3	4	5
6. When I have a problem, I tackle it head on.	1	2	3	4	5

Appendix J: Study II Survey (Continued)

Section F:

The following items are intended to describe your personality attributes. For each item, circle the number that best represents your appropriate response based on the following rating scale:

1- Never	2- Rarely	3- Sometimes	4- Very Often	5- Always
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1. I would feel comfortable doing challenging tasks on my own.	1	2	3	4	5
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2. I would be able to do tasks reasonably well on my own.	1	2	3	4	5
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3. I would be able to do tasks even if there is no one around me.	1	2	3	4	5
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4. I am challenged by ambiguities and un-solved problems.	1	2	3	4	5
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5. I am generally cautious about accepting new ideas.	1	2	3	4	5
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6. I find it stimulating to be original in my thinking and behavior.	1	2	3	4	5
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7. I must see other people using innovations before I will consider them.	1	2	3	4	5
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8. When performing my tasks, I am totally absorbed in what I am doing.	1	2	3	4	5
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9. When performing my tasks, I thought about other things.	1	2	3	4	5
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10. When performing my tasks, I am aware of distractions.	1	2	3	4	5
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Appendix K: Participant invitation letter (Study II)



Participant Invitation Letter

Dear Sir/Madam,

Greetings! First and foremost, I am extremely grateful to you for taking part in phase I and taking the time from your busy schedules to participate in the employee engagement survey. Further, your willingness to remain involved in the second phase of data collection is highly appreciated.

This second phase aims to test-retest the reliability of the engagement scale and to examine the key factors affecting peoples' levels of engagement.

I hope that you can allocate 15 minutes of your time to complete the questionnaire. Simply click on the link below, or cut and paste the entire URL into your browser to access the survey.

Survey link:

I would appreciate your response within three weeks.

Your input is very important and the confidentiality of your responses will be maintained at all times. You do not need to provide your name or any information about your organization.

If you have any questions or concerns about the survey, please contact me via email: oababneh@aut.ac.nz or by phone at: 921 9999 ext. 6976.

Once again, I would like to convey my deepest appreciation for your participation. I can offer you nothing other than my sincere thanks for participating and a summary of the research findings

Yours Sincerely,

Omar Ababneh, PhD Candidate

Appendix L: Scale statistics, item statistics, and item total statistics of Study II engagement scale

Scale Statistics for the 20-Item Engagement Scale (Study II)

Mean	Variance	Std. Deviation	N of Items
75.5	87.1	9.33	20

Note. N= 112

Item Statistics for the 20-Item Engagement Scale (Study II)

	Mean	Std. Deviation
I am enthusiastic in my job	3.8	.62
When I get up in the morning, I feel I like going to work	3.5	.80
I am proud of the work that I do	4.0	.81
I speak highly of this organization to my friends	3.6	.93
I feel energetic at my work	3.6	.73
I feel positive about my job	3.6	.81
At work, I am passionate about my job	3.8	.86
I show a great deal of passion while performing tasks	3.7	.80
When I am working, I often lose track of time	3.3	.80
Performing my job is so absorbing that I forget about everything else	3.0	.85
This organization really inspires the very best in me in the way of job performance	2.9	.83
My job inspires me	3.4	.92
I find the work I do full of meaning and purpose	3.6	.93
I understand how my role relates to company goals and objectives	3.8	.88
I do my best to solve problems that arise in my job	4.4	.61
At work, I persist through challenges	4.2	.70
I look for innovative ways to do my job efficiently	3.9	.88
I enjoy working toward achieving the organizational objectives	3.6	.85
I fulfil the assigned responsibilities and duties defined in my job description	4.5	.56
I perform the tasks that are expected to meet performance requirements	4.4	.62

Note. N= 112

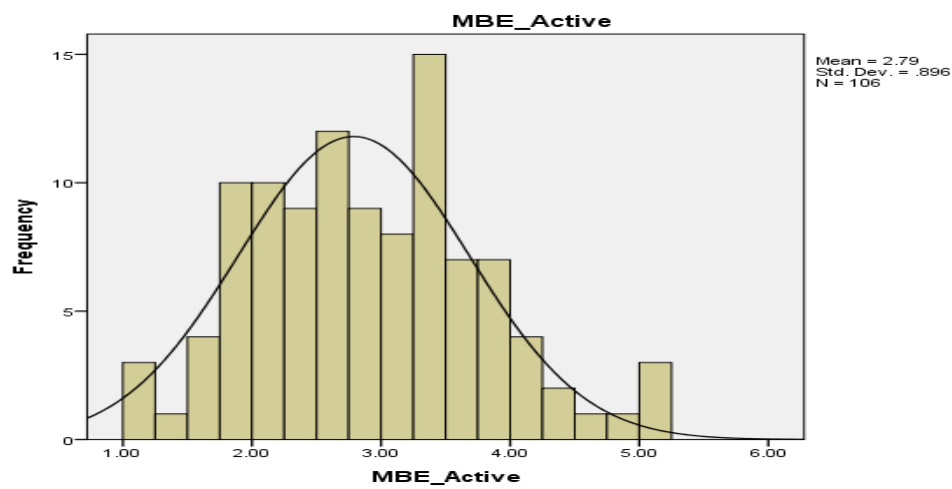
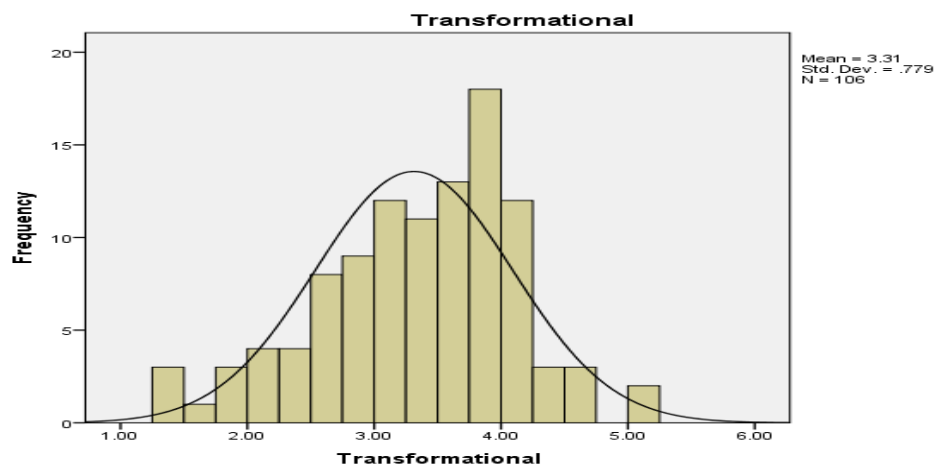
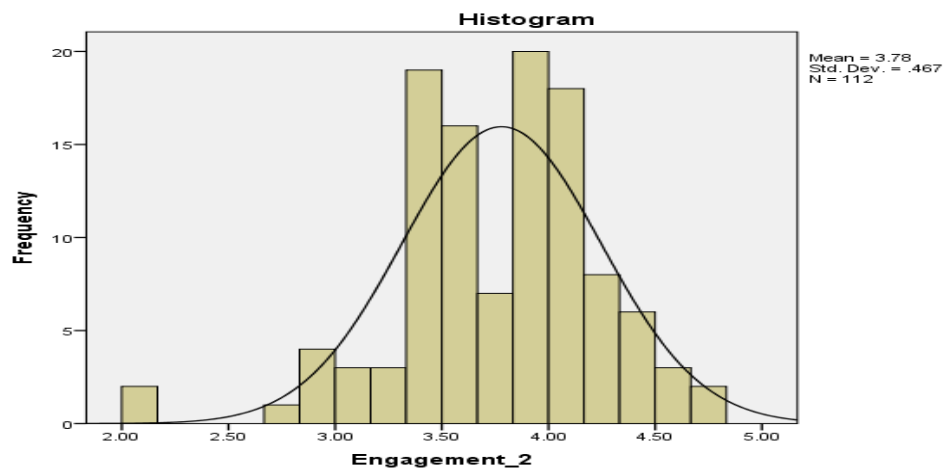
Appendix L: Scale statistics, item statistics, and item total statistics of Study II engagement scale (continued)

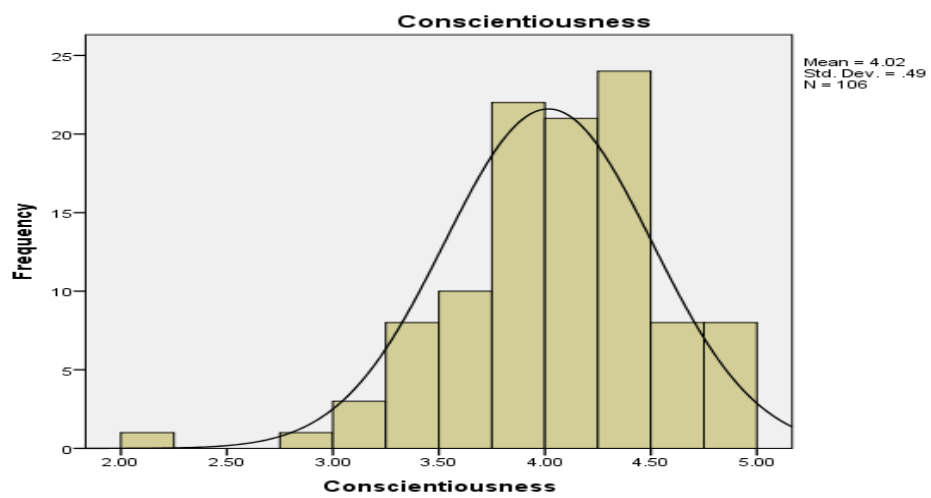
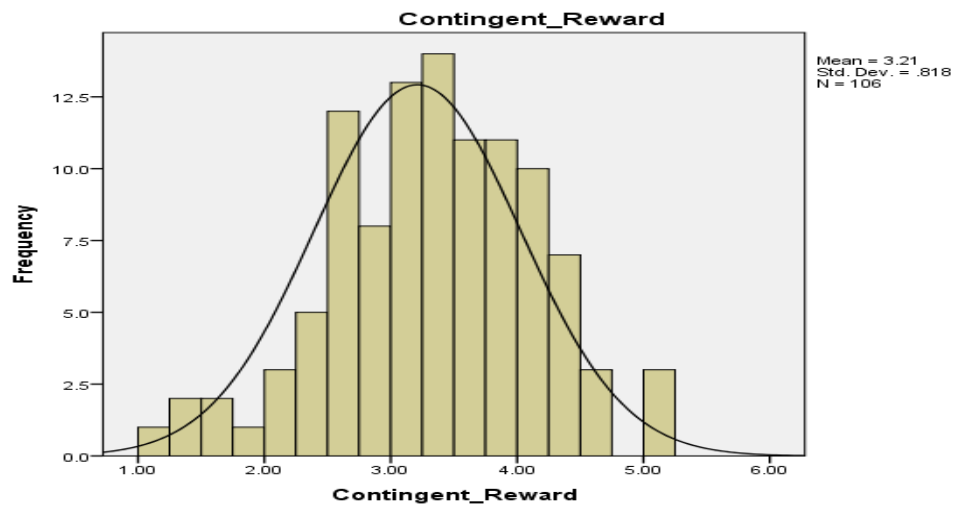
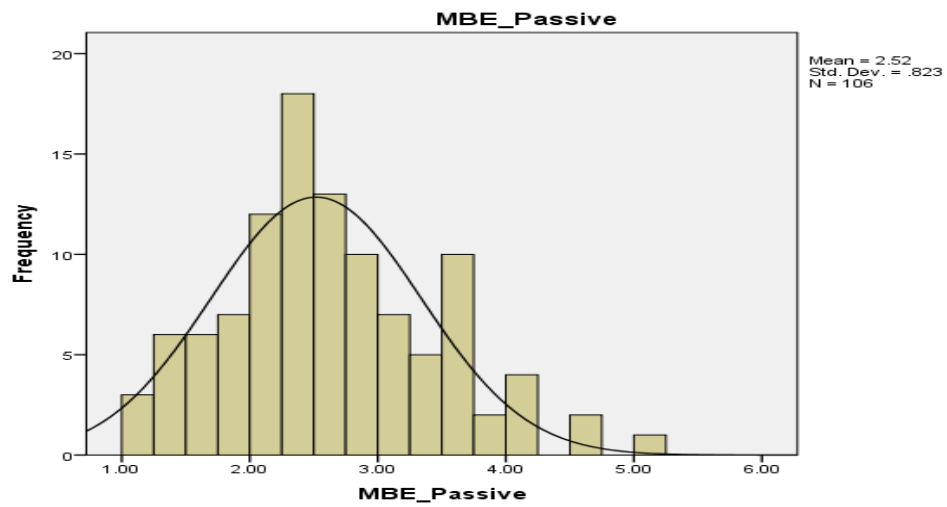
Item-Total Statistics of the 20-Item Engagement Scale (Study II)

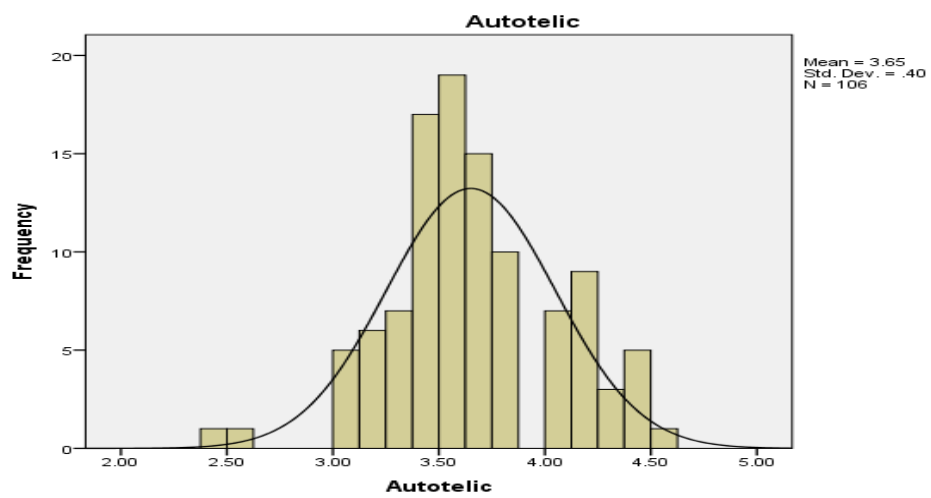
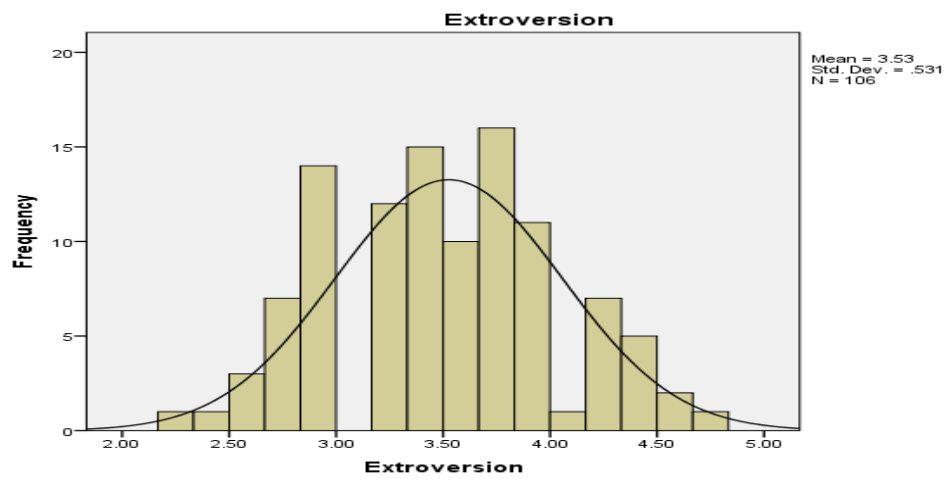
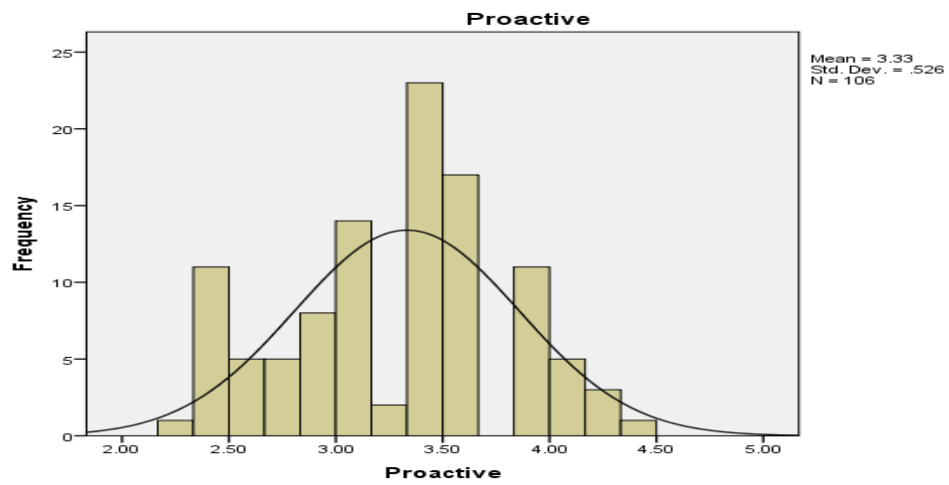
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
I am enthusiastic in my job	71.7	79.6	.62	.680	.89
When I get up in the morning, I feel I like going to work	72.0	78.6	.55	.520	.89
I am proud of the work that I do	71.5	76.6	.69	.626	.88
I speak highly of this organization to my friends	71.9	77.1	.55	.553	.89
I feel energetic at my work	71.9	77.6	.69	.593	.88
I feel positive about my job	71.9	77.2	.63	.690	.88
At work, I am passionate about my job	71.7	75.5	.71	.699	.88
I show a great deal of passion while performing tasks	71.8	77.5	.62	.615	.88
When I am working, I often lose track of time	72.2	81.7	.32	.526	.89
Performing my job is so absorbing that I forget about everything else	72.5	80.9	.35	.531	.89
This organization really inspires the very best in me in the way of job performance	72.6	77.7	.58	.646	.89
My job inspires me	72.1	75.0	.70	.771	.88
I find the work I do full of meaning and purpose	71.9	75.6	.65	.688	.88
I understand how my role relates to company goals and objectives	71.7	79.1	.45	.476	.89
I do my best to solve problems that arise in my job	71.1	82.5	.38	.487	.89
At work, I persist through challenges	71.3	83.6	.23	.445	.89
I look for innovative ways to do my job efficiently	71.6	80.1	.39	.376	.89
I enjoy working toward achieving the organizational objectives	71.9	76.6	.64	.585	.88
I fulfil the assigned responsibilities and duties defined in my job description	71.0	84.2	.24	.595	.89
I perform the tasks that are expected to meet performance requirements	71.1	83.3	.29	.638	.89

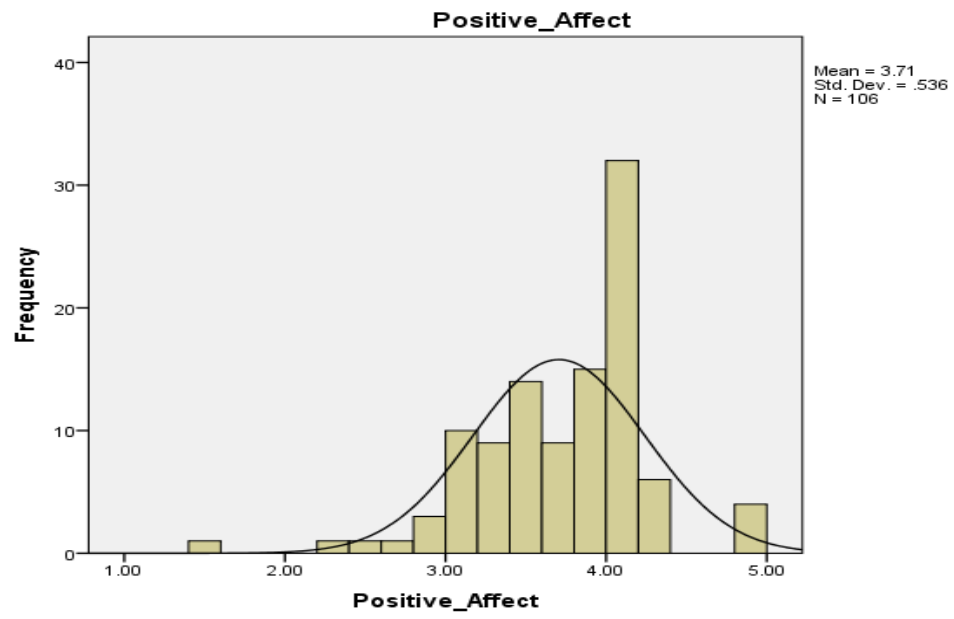
Note. N = 112

Appendix M: Normality histograms for Study II scales









Appendix N: Regression Excluded Variables

Excluded Variables^a

						Collinearity Statistics
Model		Beta In	t	Sig.	Partial Correlation	Tolerance
1	Transformational	.38 ^b	4.95	.00	.43	.96
	MBE_Active	.11 ^b	1.28	.20	.12	.96
	MBE_Passive	-.11 ^b	-1.35	.18	-.13	.99
	Contingent_Reward	.32 ^b	3.91	.00	.36	.95
	Conscientiousness	.26 ^b	2.87	.00	.27	.77
	Proactive	.05 ^b	.54	.58	.05	.77
	Extroversion	-.00 ^b	-.00	.99	-.00	.76
	Autotelic	.12 ^b	1.38	.16	.13	.86
2	MBE_Active	.05 ^c	.62	.53	.06	.93
	MBE_Passive	.09 ^c	1.04	.29	.10	.76
	Contingent_Reward	.06 ^c	.50	.61	.04	.41
	Conscientiousness	.23 ^c	2.81	.00	.26	.77
	Proactive	.05 ^c	.61	.53	.06	.77
	Extroversion	.05 ^c	.56	.57	.05	.75
	Autotelic	.18 ^c	2.25	.02	.21	.84
3	MBE_Active	.05 ^d	.67	.50	.06	.93
	MBE_Passive	.09 ^d	1.05	.29	.10	.76
	Contingent_Reward	.04 ^d	.37	.71	.03	.41
	Proactive	.01 ^d	.21	.83	.02	.75
	Extroversion	-.00 ^d	-.01	.98	-.00	.71
	Autotelic	.10 ^d	1.10	.2	.10	.66

a. Dependent Variable: Engagement

b. Predictors in the Model: (Constant), Positive_Affect

c. Predictors in the Model: (Constant), Positive_Affect, Transformational

d. Predictors in the Model: (Constant), Positive_Affect, Transformational, Conscientiousness