The Mediating Role of Positive Affect on the Relationship Between Psychological Capital and Employee Engagement: A Cross-Sectional Study

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Abstract

Purpose: By investigating the relationship between psychological capital and employee engagement, with positive affect as a potential mediator, this paper aims to understand the underlying mechanisms that lead to employee engagement.

Design/methodology/approach: A survey was dispensed to a non-probability sample and quantitative methods were used to analyse the data.

Findings: Positive affect was found to partially mediate the relationship between psychological capital and employee engagement. Positive affect was also found to partially mediate the relationship between self-efficacy and engagement, hope and engagement, and optimism and engagement. Positive affect fully mediated the relationship between resilience and engagement.

Research limitations/implications: The nature of the sample used means that results cannot be generalised. As the study was cross-sectional in design, the direction of the relationships cannot be concluded. Future studies might replicate the study in a longitudinal design with a probability sample in order to extend the findings to the population.

Practical implications: Results from this study imply that both psychological capital and positive affect influence positive employee engagement outcomes. This knowledge can be used by organisations to effectively improve engagement by boosting psychological capital and positive affect in employees. Recommendations for implementation are included in-text.

Originality/value: This may be the first study to empirically examine positive affect as an underlying mechanism that lead psychological capital to employee engagement.

Keywords: human resource management; employee engagement; job-engagement scale; psychological capital, positive affect; mediation analysis

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List of Abbreviations

EE – Employee Engagement

Psycap – Psychological Capital

HR – Human Resources

HRM – Human Resource Management

I-PANAS-SF – International Positive and Negative Affect Schedule Short For

JES – Job Engagement Scale

PA – Positive Affect

SPSS – Statistical Package for the Social Sciences

UWES – Utrecht Work Engagement Scale

Chapter One: Introduction

1.1 Introduction

Employee engagement (EE), psychological capital (Psycap) and positive affect (PA) are explored in this study. While all three constructs are of interest, the goal of this research is to investigate the underlying mechanisms that lead to EE. EE was first identified by Kahn (1990) who recognised that employees experienced moments of engagement and disengagement with their work roles throughout their working day and concluded that EE is made up of three components: cognitive, emotional and physical engagement. Since his seminal paper was published, the EE field has become fragmented in its approach to engagement theory and measurement (Albrecht et al., 2015; Bailey et al., 2017; Cole et al., 2012; Kulikowski, 2017; Newman & Harrison, 2008; Robertson & Cooper, 2010; Shuck, Adelson & Reio, 2017; Shuck et al., 2017; Viljevac et al., 2012; Wefald et al., 2011; Wefald et al., 2012). However, there is consensus that it leads to positive organisational outcomes such as competitive advantage (Albrecht et al., 2015; Gallup, 2019) and increased workplace performance (Bakker & Bal, 2010; Chaurasia & Shukla, 2014; Chhajer et al., 2018; Kašpárková et al., 2018; Rich et al., 2010; Anitha, 2014).

Psycap is a higher order construct made up self-efficacy, hope, resilience and optimism. It evolved from the field of positive organisational behaviour and positive psychology. Key to the Psycap theory is that it can be measured and can be developed in order to achieve higher workplace performance outcomes (Luthans et al., 2007; 2010). Psycap has also been associated with favourable organisational outcomes, such as competitive advantage (Luthans et al., 2007; Toor & Ofori, 2010) and workplace performance (Chaurasia & Shukla, 2014; Luthans et al., 2007; Sampath Kappagoda et al., 2014; Santos et al., 2018).

PA stems from the affect literature in psychology. Affect refers to the experience of emotions, therefore PA refers to positive emotions (Watson & Tellegen, 1985; Watson et al., 1998). High PA is associated with an array of positive life outcomes including positive work-related outcomes for employees (Lyubomirsky et al., 2005), such as performance (Isen, 2001) and job-satisfaction. Employees with high PA levels provide significant value to organisations (Bakker & Leiter, 2010).

1.2 Research Objectives

The main research objective is laid out below, followed by the four sub-objectives.

1.2.1 Main Research Objective

To investigate whether PA mediates the relationship between Psycap and EE.

1.2.2 Sub-Objectives

To investigate the relationship between the individual Psycap constructs, PA and EE, as follows:

1. To investigate whether PA mediates the relationship between self-efficacy and EE.
2. To investigate whether PA mediates the relationship between hope and EE.
3. To investigate whether PA mediates the relationship between resilience and EE.
4. To investigate whether PA mediates the relationship between optimism and EE.

1.3 Justification for Research

EE leads to desirable business outcomes (Harter et al., 2002), including profitability and productivity (Reilly, 2014), therefore it is essential to find out what leads to EE (Salanova et al., 2010). Despite the positive associations found between Psycap and PA (Avey et al., 2008), and Psycap and EE (Chen, 2015; Chhajer et al., 2018; Joo et al., 2016; Paek et al., 2015; Singh & Singh, 2017), a three-way interaction including PA has not been analysed. Sweetman & Luthans (2010) were the first to suggest that PA mediates the relationship between Psycap and EE. This full mediation model is yet to be tested and so this study seeks to empirically assess if this model exists and, in doing so, to fill a gap in the literature.

A second reason for carrying out this research relates to the positive psychology perspective; in addition to the approach used in traditional schools of psychology, the positive psychology movement seeks to investigate factors that result in psychological wellness in in order to create effective interventions to produce positive outcomes

(Seligman & Csikszentmihalyi, 2000). This perspective is being adopted within the work-related literature (Luthans et al., 2007). In line with this approach, the aim of this paper is to investigate the factors which lead to engagement, in order to gain knowledge which can be applied to practice to achieve positive organisational outcomes.

Correspondingly, a benefit of mediation analysis is that it allows researchers to examine underlying mechanisms between relationships so that targeted positive interventions can occur (Fairchild & McDaniel, 2017). Hence, a mediation analysis was considered a suitable method for investigating the process which leads to EE.

Subsequently, the justification for carrying out this research is twofold: it expects to both fill a gap in the literature and to contribute to human resource management (HRM) practices by providing empirical knowledge for practical purposes.

1.4 Dissertation Structure

There are six chapters in this dissertation:

- Chapter one: presents the introduction, justification and methodology relating to the study.
- Chapter two: reviews the literature relating to the three topics. The research objectives are outlined.
- Chapter three: provides details on the methodology chosen for the study with careful consideration given to the chosen methods. The limitations and ethical considerations are discussed.
- Chapter four: presents the results from the analysis.
- Chapter five: discusses the results from the analysis linking them back to literature discussed in chapter two.
- Chapter six: concludes the study and includes recommendations, costings and timelines culminating from the results found.

1.5 Methodology

A fixed, survey strategy, which is cross-sectional in design, was used in this study. Analysis was performed through quantitative methods. The survey contains three published questionnaires, the JES (Rich et al., 2010) for EE, the International Positive and Negative Affect Schedule Short Form (I-PANAS-SF; Thompson, 2007) for PA and the Psycap questionnaire (Luthans et al., 2007). Each instrument has been found to be reliable and valid. They were distributed to a non-probability sample via an online questionnaire.

Chapter Two: Literature Review

2.1 Introduction

This chapter will explore the literature pertaining to the three key topics in this study, Psycap, PA and EE. In doing so, it defines each one and mentions their benefits in relation to HRM. Issues regarding the conceptualisation and measurement of EE are highlighted and subsequently, an argument is made in support of Kahn's (1990) theory of engagement as measured by the JES (Rich et al., 2010).

Relationships between the three constructs are then examined, specifically, the relationships between Psycap and EE, Psycap and PA, and PA and EE, respectively. In this examination, an argument is formed for the existence of a positive relationship in each case and the direction of the relationships is also inferred. A conclusion is drawn that PA might mediate the relationship between Psycap and EE. The research objectives are then outlined, followed by a summary of the chapter.

2.2 Defining Employee Engagement, Psychological Capital and Positive Affect

In the following three sections, key literature regarding EE, Psycap and PA is presented.

2.2.1 Employee Engagement

EE is repeatedly linked to both competitive advantage (Albrecht et al., 2015; Gallup, 2019) and to increased performance (Bakker & Bal, 2010; Chaurasia & Shukla, 2014; Chhajer et al., 2018; Kašpárková et al., 2018; Rich et al., 2010), ergo, it is worthy of study for HRM theorists, and practitioners who aim to improve performance and competitive advantage in their workplace.

However, the EE field is not without its problems. One issue that is constantly raised is the lack of consensus on its meaning or measurement. While Bailey et al. (2017) have established in their narrative synthesis of the EE literature that the most commonly used concept and measure of EE is the Utrecht Work Engagement Scale

(UWES) proposed by the Utrecht Group (Schaufeli et al., 2002), the focus in this study will be on the concept conceived by Kahn (1990) for the reasons outlined below.

Kahn (1990) believed EE to be comprised of physical, cognitive and emotional engagement (this will be explored further in the next section). Schaufeli et al. (2002), concur with Kahn's theory of EE yet allege that EE is made up of three different components: vigour, dedication and absorption, and have positioned it on the opposite end of a continuum to burnout. Despite its popularity, their scale has been criticised for its poor validity (Cole et al., 2012; Kulikowski, 2017; Newman & Harrison, 2008; Rich et al., 2010; Viljevac et al., 2012; Wefald et al., 2012).

Meanwhile, appeals have been made to honour Kahn's conceptualisation of engagement (Cole et al., 2012; Rich et al., 2010; Shuck, Adelson & Reio, 2017; Shuck et al., 2017). This has been endeavoured in scales created by Rich et al. (the JES; 2010) and May, Gilson, & Harter (the May, Gilson, & Harter scale; 2004). The latter has been criticised for its weak validity and crossover with the UWES (Viljevac et al., 2012). Others have endorsed the use of the JES (Cole et al., 2012) and it has been praised for being "psychometrically robust" (Shuck, Adelson & Reio, 2017, p. 273; Shuck et al., 2017) Subsequently, the concept of EE that will be applied in this paper will be that of Kahn (1990) as measured by the JES (Rich et al., 2010).

As Bailey et al. (2017) note, generalisations cannot be made between studies using different measures. However, as the UWES constitutes a large portion of existing research, studies involving their conceptualisation and measurement will be referred to throughout this paper but this will be flagged to the reader in such cases: the conceptualisation by Schaufeli et al. (2002) will be referred to as the Utrecht EE and that of Kahn (1990) will be referred to as Kahn's EE.

2.2.1.1 Review of Kahn's Engagement

Kahn (1990), a pioneer in the field of EE, described it as the "harnessing of organization members' selves to their work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances" (p. 694). He described disengagement as "the uncoupling of selves

from work roles; in disengagement, people withdraw and defend themselves physically, cognitively, or emotionally during role performances" (p. 694).

Kahn (1990) expressed a vision of EE where the employee and the role become united, as the employee's energy is absorbed into their role behaviour. He believed that when people engaged they brought their "preferred self" to their work allowing them to be physically present, mentally focused and concentrated, and emotionally connected to others, "in ways that display what they think and feel, their creativity, their beliefs and values, and their personal connections to others" (p. 700).

Kahn (1990) also identified three psychological conditions that must be present for an individual to enter the state of engagement described prior: psychological meaningfulness, psychological safety and psychological availability. To have these conditions satisfied, workers unconsciously answer the following questions before deciding to engage or not: "(1) How meaningful is it for me to bring myself into this performance? (2) How safe is it to do so? and (3) How available am I to do so?" (p. 703). When these three conditions are met, people are able to bring their whole self to the role. Results have corroborated the theory that the conditions are a prerequisite of EE (May et al., 2004). The three conditions are significant as Kahn (1990) dedicated such a large section of his seminal paper to them. They are discussed in more detail in section 2.4: The Positive Affect and Employee Engagement Relationship.

2.2.2 Psychological Capital

Like EE, Psycap helps organisations attain competitive advantage (Luthans et al., 2007; Toor & Ofori, 2010) and increases workplace performance (Chaurasia & Shukla, 2014; Luthans et al., 2007; Sampath Kappagoda et al., 2014; Santos et al., 2018), hence, it is another important subject for HRM theorists and practitioners. According to Luthans et al. (2007), Psycap is a higher order construct made up of self-efficacy, hope, resiliency and optimism and is defined in the following way:

> PsyCap is an individual's positive psychological state of development and is characterized by: (1) having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks; (2) making a positive attribution (optimism) about succeeding now and in the future; (3) persevering toward goals and, when necessary, redirecting paths to goals (hope) in order to succeed; and (4) when beset by problems and adversity, sustaining and bouncing back and even beyond (resiliency) to attain success (p. 3)

While the aforementioned definition describes the concept of Psycap as theorised by Luthans et al. (2007), self-efficacy, hope, resilience and optimism have been extensively studied on their own merits. Others have described the four constructs in the following ways.

Self-efficacy refers to whether a person thinks that they can succeed at a particular task. If they think that they can succeed, they are more likely to confidently approach the task rather than avoid. Those high in self-efficacy believe that they will be successful (Stajkovic & Luthans, 1998; Bandura, 1994). Ways in which people build self-efficacy are through mastery experiences – recognising personal accomplishment and success, and through social modelling – observing those around them successfully achieve their goals (Bandura, 1994).

Hope is a positive state that allows people to focus their energy on their goals and create strategies to meet them. It is posited as the opposite of helplessness which prevents people from engaging with their goals (Synder et al., 1991). Following setbacks, hopeful people are better at developing new plans to meet their goals than less hopeful people (Luthans et al., 2007).

Optimism has cognitive, motivational and emotional aspects (Peterson, 2000) and involves an expectation from an individual that things will work out favourably, in a way that is desirable for them (Seligman & Csikszentmihalyi, 2000). Seligman (2006) described the differences between pessimists and optimists in the following way: "[t]he defining characteristic of pessimists is that they tend to believe bad events will last a long time, will undermine everything they do, and are their own fault", while optimists "tend to believe defeat is just a temporary setback, that its causes are confined to this one case. The optimists believe defeat is not their fault: Circumstances, bad luck, or other people brought it about" (p. 4/5). Therefore, optimists are not defined by negative experiences, they expect things to turn out differently in the future.

Resiliency has been described as a "psychological frame of mind" (Tugade & Fredrickson, 2004, p. 320) and refers to a person's ability to overcome difficulties or

challenges (Luthans, 2002; Noble & McGrath, 2012). Resilient people positively adapt and recover from difficult life events (Masten & Obradovic, 2006). Those with high resiliency view setbacks as challenges to be overcome (Luthans et al., 2007).

Additionally, vital to the Psycap theory, is that it can be developed in individuals and the sum of the four constructs are stronger together than apart. On the state-trait continuum, Psycap is somewhere between a state and a trait; more adaptable than a state but more rigid than a trait (Luthans et al., 2007; Luthans et al., 2010).

2.2.3 Positive Affect

In psychology literature, the term affect refers to emotions. PA and negative affect refer to positive and negative emotions, respectively. While their terms might make them sound like they are related, they do not exist on a continuum, but occupy two separate dimensions. Instead, high PA and low PA are found at opposite ends of one continuum (Watson & Tellegen, 1985; Watson et al., 1998). Watson et al. (1998) have described PA as "the extent to which a person feels enthusiastic, active, and alert. High PA is a state of high energy, full concentration, and pleasurable engagement, whereas low PA is characterized by sadness and lethargy" (p. 1063).

High levels of PA have been attributed with predicting a range of positive consequences such as good health, healthy relationships and successful work-related outcomes (Lyubomirsky et al., 2005). Affect influences organisational outcomes such as "performance, decision making, turn-over, prosocial behavior, negotiation and conflict resolution behavior, group dynamics, and leader-ship" (Barsade & Gibson, 2007, p. 51). Positive affect is associated with effective employee performance (Isen, 2001).

2.3 The Psychological Capital and Employee Engagement Relationship

Some have argued that Psycap influences the Utrecht EE (Sweetman & Luthans, 2010) and others have produced empirical evidence in support of the theory (Chen, 2015; Joo et al., 2016; Paek et al., 2015). One study suggests that Psycap is positively related to the emotional component of Kahn's engagement (Avey et al., 2008). Other research

has found that Psycap is positively associated with full EE (physical, cognitive and emotional) as theorised by Kahn (Chaurasia & Shukla, 2014; Park et al., 2017; Singh & Singh, 2017).

Research on the four individual Psycap constructs have also been positively linked with EE. For example, Singh & Singh (2017) measured the relationship between self-efficacy, hope, resilience and optimism, and Kahn's EE and found positive relationships in each case, with optimism having the strongest relationship with EE. Likewise, self-efficacy and optimism influence Kahn's EE (Chhajer et al., 2018). In relation to antecedents of EE, Bailey et al. (2017) assert that personal resources, including self-efficacy, resilience and optimism have received considerable attention in the literature.

The Utrecht EE has also been positively associated the following individual or combination of Psycap resources: hope (Ouweneel et al., 2012b); hope, self-efficacy and optimism (Ouweneel et al., 2012a); resilience (Kašpárková et al., 2018; Wang et al., 2017); self-efficacy, optimism and resilience (Mache et al., 2014); and self-efficacy (Hidayah Ibrahim et al., 2019); self-efficacy and optimism (Xanthopoulou et al., 2009). It is notable that in one case, the results did not find a significant positive relationship between the Utrecht EE and resilience (Meintjes & Hofmeyr, 2018). However, this finding is outnumbered by the research mentioned prior and therefore, this study still expects resilience to relate to EE.

All of the evidence presented above, particularly those finding positive associations between Psycap and Kahn's EE, suggest that this study is likely to also find a positive relationship between these two constructs as well. Accordingly, this section supports one aspect of the research objectives for this study: that Psycap positively relates to EE.

2.4 The Positive Affect and Employee Engagement Relationship

In countries with high happiness levels, EE levels are also high (Schaufeli, 2017). Some argue that psychological well-being should be integrated into the concept of EE in order to achieve a more sustainable form of EE with added benefits (Robertson &

Cooper, 2010; Robertson, Birch & Cooper 2012), the implication being that those with higher well-being levels can reach increased engagement levels more frequently and for a longer time. Others view well-being as being synonymous with PA (Xanthopoulou et al., 2012), thus the former argument is relevant to the PA examination presented here. Shuck, Adelson and Reio (2017) and Shuck et al. (2017) argue that a person's behaviour depends on their affective state and therefore, that their emotions predict their engagement, supporting a theory that PA predicts EE.

Research suggests that the Utrecht EE is positively linked with PA (Balducci et al., 2011; Ouweneel et al., 2012a; Ouweneel et al., 2012b; Wefald et al., 2011) and that high EE (Kahn's) is related to high well-being levels (Shuck & Reio Jr., 2014). However, while Avey et al. (2008) found that positive emotions lead to Kahn's emotional engagement, the author is not aware of any existing research on the relationship between PA and total EE as theorised by Kahn. Two arguments are laid out below to suggest that a positive relationship may exist between PA and Kahn's EE.

In her broaden and build theory, Fredrickson (1998) proposes that when people experience positive emotions, they become more attentive and have access to a larger pool of thoughts and behaviours than those who experience negative emotions, meaning that they can think and act more creatively and have a broader spectrum through which they can interpret events and then behave accordingly. Alternatively, those with negative emotions are stifled in their thoughts and behaviours; they have access to a narrower selection of thoughts and associated behaviours. In addition, the experience of positive emotions also builds a person's "physical, intellectual, and social resources" (p. 311) which can be accessed at a later time. This theory is key to the arguments outlined below for two reasons. Firstly, many of the studies mentioned in the following paragraphs have produced confirmatory, empirical research based on the broaden and build theory. Secondly, positive emotions are directly and positively related to a person's physical, intellectual and social capacities, in other words, in line with Kahn's EE, their physical, cognitive and emotional state. To build on this, some examples of how PA positively impacts people, physically, cognitively and emotionally, follow.

Research has shown that PA is positively related to physical, cognitive and emotional experiences (Tugade & Fredrickson, 2004). In relation to the physical aspect, those with high PA experience high energy (Watson et al., 1998; Baranik & Eby, 2016; Barsade & Gibson, 2007), better physical health (Diener & Scollon, 2014), and are less susceptible to illness (Cohen et al., 2003). PA helps people to recover from the harmful physical reactions brought on by negative emotions (Tugade & Fredrickson, 2004). Regarding the cognitive aspect, those with high PA have higher concentration levels, are more alert (Watson et al., 1998) and are more creative (Fredrickson, 1998; Rego et al., 2012). Concerning the emotional aspect, those high in PA view others more favourably (Lyubomirsky et al., 2005) and have better interpersonal relationships (Carleton et al., 2018; Cohn & Fredrickson, 2010; Cohn et al., 2009; Lyubomirsky et al., 2005; Noble & McGrath, 2012). Subsequently, in line with the research objectives of this study, it seems plausible that PA could positively impact the physical, cognitive and emotional aspects of engagement.

In addition to the broaden and build theory, underlying the second argument in support of a positive PA, EE relationship is the theory that perceptions mediate the relationship between the three psychological conditions and EE (Kahn, 1990). Similarly, research has shown that perception of environment influences a worker's ability to engage (Shuck & Reio Jr., 2014). This, in conjunction with the broaden and build theory, will be used to suggest that those with more positive emotions could be more likely to interpret the conditions favourably, and therefore, engage. Below each condition is described followed by an exploration of its relationship with PA.

Psychological Meaningfulness: employees look for meaningfulness in their task, role and social interactions. Roles should provide status which should align with how the worker views themselves. Tasks should provide challenge, autonomy and learning opportunities. Social interactions should make the employee feel appreciated and valued (Kahn, 1990).

PA and Psychological Meaningfulness: those with higher levels of PA experience higher levels of life satisfaction (Baranik & Eby, 2016; Cohn et al., 2009; Schutte, 2013; Watson et al., 1998), job-satisfaction (Judge & Ilies, 2004), positive attitudes such as appreciation and liking (Fredrickson & Losada, 2005), positive outlook and

confidence (Lyubomirsky et al., 2005), pride (Baranik & Eby, 2016) and contentment (Fredrickson & Joiner, 2002; Tugade & Fredrickson, 2004). Thus, the employee with high PA may be more inclined to find meaning and satisfaction in their role, rather than not feeling fulfilled by what the role offers them.

Psychological Safety occurs when workers feel like they can be themselves "without fear of negative consequences to self-image, status, or career" (p. 708). Aspects of the work environment which could potentially be perceived as unsafe and therefore distracting are interpersonal relationships, group and intergroup dynamics, management style, and organisational culture. When these aspects feel unclear, inconsistent or threatening, the worker feels too unsafe to engage (Kahn, 1990).

PA and Psychological Safety: when people experience positive emotions, they do not experience the need to withdraw from situations (Lyubomirsky et al., 2005), unlike when they experience fear (Lazarus, 2006; Tugade & Fredrickson, 2004). Emotions govern our interpersonal relationships (Lazarus, 2006) which in turn significantly affect Kahn's psychological safety (May et al., 2004). Those with high PA experience more positive interpersonal relations (Lyubomirsky et al., 2005), are more satisfied with their relationships (Carleton et al., 2018; Schutte, 2013), are more accepting of change (Lyubomirsky et al., 2005; Avey et al., 2008) and feel more competent at work (Ouweneel et al., 2012a). Subsequently, it may be that an individual with high PA is less likely to perceive situations as being unsafe and so will be able to engage.

Psychological Availability refers to the mental and physical resources required by a worker to engage. The four dimensions of this condition are physical energy, emotional energy, insecurity and outside life. Insecurity describes how confident and comfortable people are with their work and status. Outside life refers to things that happen to employees outside of work that may positively or negatively impact personal resources. The absence of any of these resources can distract the employee preventing them from engaging (Kahn, 1990).

PA and Psychological Availability: those with high PA have more physical, cognitive and emotional resources (Fredrickson, 1998; Fredrickson & Joiner, 2002). As people with high PA have more energy than those low in PA to begin with (Watson et al.,

1998; Baranik & Eby, 2016; Barsade & Gibson, 2007), then even if work or outside issues were to cause energy depletion, those with high PA are still left in a stronger position than those lower in PA. As stated already, people with high PA experience increased life satisfaction (Cohn et al., 2009; Baranik & Eby, 2016; Schutte, 2013; Watson et al., 1998) and are more content (Fredrickson & Joiner, 2002; Tugade & Fredrickson, 2004), implying that they may view their status more favourably and consequently experience emotional security.

Both arguments presented above suggest that those with more positive emotions might be more likely to experience EE. It seems clear that PA impacts people physically, cognitively and emotionally so this might extend to engagement experiences. Equally, those high in PA may be more disposed to experiencing meaningfulness, safety and availability than those with lower PA. Since the conditions facilitate EE, it may be possible that PA might positively affect EE by facilitating the conditions. Again, this literature is presented in support of the research objectives of this study, specifically, that PA predicts EE.

2.5 The Psychological Capital and Positive Affect Relationship

Research shows that there is a positive relationship between PA and the individual constructs of Psycap, for example hope (Ouweneel et al., 2012b), self-efficacy and optimism (Ouweneel et al., 2011; Ouweneel et al., 2012a), and resilience (Cohn et al., 2009). Lyumbumirsky et al. (2005) cite confidence, optimism, and self-efficacy and resiliency as being positively associated with positive emotions. All of the aforementioned studies position PA as being the predictor of the personal resources.

However, in his seminal work, Lazarus (1993; 2006) contends that emotions are formed following an internal process. This process involves a person making an appraisal of an event based on the relational meaning that they attribute to the event (referring to the connotations that arise based on their frame of reference or personal history), their ability to cope with the event and whether or not they have the resources to do so. Based on this appraisal, they form an emotional response. If they experience a positive relational meaning to the event and think that they can cope, they are likely to experience a positive emotion. If they attribute a negative relational meaning or

think that they cannot cope, they will experience a negative emotion. This is a continuous process.

As an example, Lazarus (2006) suggests that after receiving a gift, a person could experience a whole range of emotions, both positive and negative, rather than just gratitude. Likewise, in a work situation, when faced with positive feedback from a supervisor for example, depending on a person's level of Psycap, they might form a range of emotions. This feedback might be affirming for a person high in self-efficacy who already believes that they are capable whereas a person low in self-efficacy might not believe the compliment as their relational meaning tells them that they're incapable (Stajkovic & Luthans, 1998). An optimistic person may view the praise as being deserved and typical of their experience but a pessimistic person might think that it was underserved, uncommon and an experience that would prove to be short-lived (Seligman, 2006). When faced with negative feedback from a supervisor, a resilient person might identify a challenge and recognize that they can apply themselves to improve unlike a less resilient person who might see an insurmountable problem as that is how they have experienced obstacles in the past (Luthans et al., 2007; Noble & McGrath, 2012; Tonkin et al., 2018). A hopeful person might also appraise the event as a challenge and believe that they can set new pathways to reach their goal, thus, overcoming it. Alternatively, one low in hope might attach a meaning of doom and pervasiveness (Synder et al., 1991; Luthans et al., 2007). Based on their appraisals, in the examples above, those with higher Psycap may be more likely to form a positive emotion, in comparison to their counterparts lower in Psycap, who might be more likely to form a negative emotion.

Other theorists agree that there is a flow from cognition to emotion to behaviour (Shuck, Adelson & Reio, 2017; Shuck et al., 2017). Empirical evidence has also supported the theory. For example, Tugade & Fredrickson (2004) found that those high in resiliency are more likely to experience positive emotions during stressful events than those low in resiliency; research suggests that optimism predicts PA over time (Segerstrom & Sephton, 2010). Likewise, other cross-sectional studies have positioned the following personal resources as the predictor of PA: resilience (Wang Li & Li, 2018), self-efficacy and hope (Rego et al., 2012); of particular relevance to this study, Avey et al. (2008) conclude that Psycap appears to positively predict PA.

Based on the evidence and theory presented above, it appears that those higher in Psycap may be more likely to form a positive emotion in response to an external event, than those with lower levels of Psycap. This argument is offered in support of the research objectives, specifically that Psycap leads to PA.

2.6 Psychological Capital, Positive Affect and Employee Engagement: A Mediation Model

Based on the literature reviewed above, there is evidence that Psycap leads to PA which leads to EE. Some theorists support this argument, maintaining that cognition leads to emotion which leads to EE (Shuck, Adelson & Reio, 2017; Shuck et al., 2017). Avey et al. (2008) have already demonstrated that PA mediates the relationship between Psycap and the emotional component of engagement. While empirical evidence has been presented indicating that there is a positive relationship between Psycap and EE, there is also evidence to suggest that this may occur through the meditative effects of PA as Psycap is likely to increase PA which in turn is likely to increase EE. This process is demonstrated in Figure 1.

Evidence has also been presented to suggest that each individual element of Psycap is positively related to EE although, in one case relating to resilience, this has been refuted (Meintjes & Hofmeyr, 2018). One study found that PA partially mediated the relationship between resilience and the Utrecht EE (Wang et al., 2017). Likewise, based on the argument that each individual aspect of Psycap is linked with higher levels of PA, there is evidence to suggest that PA mediates the relationship between self-efficacy, hope, resilience and optimism, and Kahn's EE.

2.7 Research Objectives

The main research objective is laid out below, followed by four sub-objectives.

2.7.1 Main Research Objective

To investigate whether positive affect mediates the relationship between psychological capital and employee engagement.

2.7.2 Sub-Objectives

To investigate the relationship between the individual psychological capital constructs, positive affect and employee engagement, as follows:

5. To investigate whether positive affect mediates the relationship between self-efficacy and employee engagement.

6. To investigate whether positive affect mediates the relationship between hope and employee engagement.

7. To investigate whether positive affect mediates the relationship between resilience and employee engagement.

8. To investigate whether positive affect mediates the relationship between optimism and employee engagement.
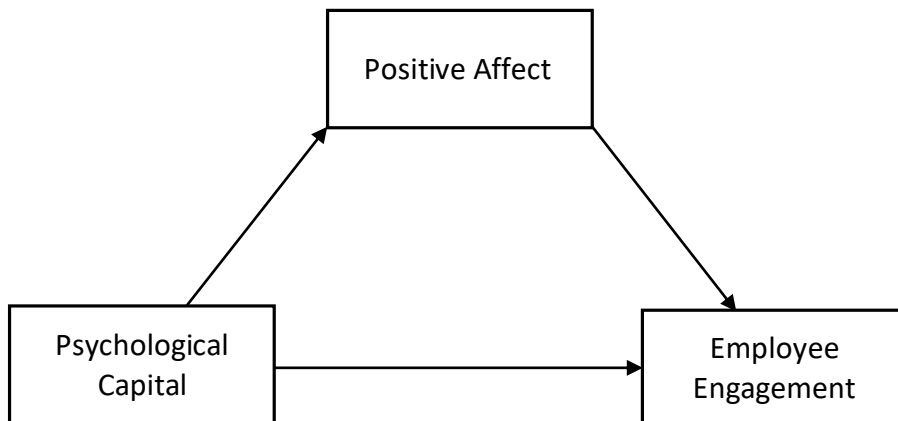
Figure 1: Model for Mediation Relationship Between Psychological Capital, Employee Engagement and Positive Affect

2.8 Conclusion

In this chapter, Psycap, EE and PA have been introduced, defined and their respective benefits proposed. To reiterate, Psycap is made of up of self-efficacy, hope, resilience and optimism and the four constructs are considered to be more powerful together than apart (Luthans et al., 2007; 2010). The issues in defining EE have been highlighted and support for Kahn's EE, as measured by the JES has been outlined. This theory of EE suggests that engagement occurs when employees are physically present, mentally focused and concentrated, and emotionally connected to others. In engagement, an individual's energy and sense of self become intertwined with their work roles. It is

dependent on the three conditions of psychological meaningfulness, safety and availability (Kahn, 1990).

Both empirical evidence and theoretical arguments have been presented to suggest a three-way interaction between Psycap, PA and EE (that Psycap leads to EE and to PA and that PA also leads to EE). Key to the Psycap, EE argument presented here is that many studies have found that self-efficacy, hope, resilience and optimism to relate positively to EE. Additionally, some empirical evidence was presented that suggests that full Psycap is positively associated with EE. An argument for a positive PA, EE argument ensued and was supported by the broaden and build theory which claims that those with positive emotions have more physical, intellectual and social capacities (Fredrickson, 1998) which relate directly to Kahn's physical, cognitive and emotional EE. It was also considered that PA might influence EE indirectly through the psychological conditions. The Psycap, PA argument followed and leans heavily on the seminal theory of Lazarus (1993; 2006), to position Psycap as a predictor of PA. This is backed up by other organisational and psychology literature. On the basis of all the empirical and theoretical evidence that was presented, the chapter culminated in the presentation of the research aims and objectives.

As noted throughout the literature review, the author has been unable to locate any research that has assessed the relationship between PA and Kahn's EE or investigated Psycap and Kahn's EE with PA as a mediating mechanism. The originality of this study will lie in the results of these findings.

Chapter Three: Methodology

3.1 Introduction

The following chapter will describe the methodology used in this research. Saunders et al. (2009) have created a research 'onion' as a framework for guiding the research process. (See Figure 2). They argue that each layer of the onion must be peeled before you can reach the next stage. Effectively it is a guideline for the order in which each part of the research should be undertaken. This framework has been employed in this research. Accordingly, research philosophy, approaches, strategies, choices, time horizons, and techniques and procedures will be discussed in order in the following sections.

The research question influences choices made regarding the methodology (Bryman, 2012; Saunders et al., 2009; Quinlan, 2011). Also, the majority of EE research is carried out using similar methods (Bailey et al., 2017) which will also guide this study. Saunders et al. (2009) admit that time and cost constraints are often a factor in research carried out for an academic course. In the following chapter, the author will often refer to the resources available to her. In doing so, she is referring to the lack of time and financial resources that relate to doing an academic course. The terms "research objective" and "research question" will be used interchangeably in this chapter.
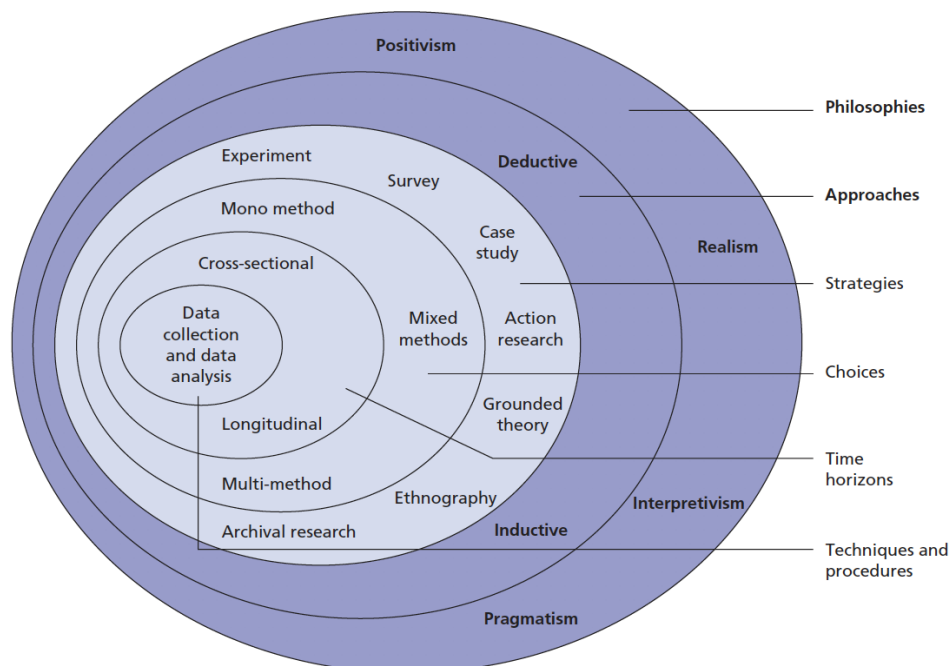

Figure 2: Research Onion (Saunders et al., 2009, p. 108)

3.2 Research Philosophy

Saunders et al. (2009) place research philosophy on the outer layer of their onion as they claim that a researcher must consider their perspectives on the nature of research practice in order to challenge their assumptions and biases to prevent them from impacting the choices they make regarding methodology. Similarly, Robson (2011) argue that thinking about the philosophy of research facilitates critical thinking in relation to the methodology. Thus, the philosophy of this study is considered below.

Ontology is the study of reality or what should be considered reality. There are two schools of thought, objectivism and subjectivism. Objectivists view social phenomena objectively. They believe that social entities exist independently to the perspectives and perceptions of social actors (Bryman, 2012; Saunders et al., 2009). Contrastingly, subjectivists view social phenomena through a subjective lens; "social phenomena are created from the perceptions and consequent actions of social actors" and is an ever-changing state (Bryman, 2012, p. 111).

Epistemology is the study of knowledge; it deliberates what should be considered adequate knowledge within a field of study. Two branches of epistemology are positivism and interpretivism (Bryman, 2012). Positivism follows the approach of the natural scientists where social reality is observed in a way that allows standardised and generalised results to be concluded. The associated methodology used will have a systemic design so that it can be easily replicated, therefore, statistical analysis is likely to be applied (Bryman, 2012; Saunders et al., 2009). Conversely, an interpretivist approach seeks to understand nuances in human behaviour leading them to dismiss the positivist stance and instead attempt to understand individual perspectives without the use of rules and generalisations (Bryman, 2012; Saunders et al., 2009; Quinlan, 2011).

The author adopts a pragmatic approach, meaning that the research has been undertaken with the belief that the research question dictates the philosophy and methodology of the research; some philosophical approaches are more suitable for answering specific research questions (Bryman, 2012; Giacobbi et al., 2005; Robson, 2011; Saunders et al., 2009). In this case, to answer the question, data must be

collected and analysed in a controlled and systematic way to make generalisations. Consequently, the question has determined the research design which in turn has prescribed an objectivist and positivist stance.

3.3 Research Approaches

Deductive and inductive approaches, and qualitative and quantitative approaches are compared below and the most appropriate choice for this study is chosen.

3.3.1 Deductive and Inductive Approaches

There are two ways in which researchers can approach theory, deduction and induction. A deductive approach occurs when researchers use existing theory to establish a hypothesis and then test the hypothesis through a structured methodology. Alternatively, researchers might first collect data and produce a theory based on their findings. The latter is known as inductive reasoning and is often used when researching a topic where there is not a lot of existing theory (Adams et al., 2014; Bryman, 2012; Bryman & Bell, 2015; Saunders et al., 2009). A deductive approach was deemed the appropriate choice for this research due to the breadth of existing research on the three topics, providing a platform from which the researcher could deduce her research objectives. It is also typical for EE research to follow the deductive approach (e.g., see Avey et al., 2008; Chen, 2015; Chhajer et al., 2018; Kašpárková et al., 2018; Ouweneel et al., 2012a; Ouweneel et al., 2012b; Paek et al., 2015).

3.3.2 Qualitative and Quantitative Approaches

Research can be carried out through qualitative and quantitative methods. Quantitative research is often carried out in line with deductivism, positivism and objectivism and the measurement of data occurs through statistical analysis. Qualitative methods tend to affiliate with inductivism, interpretivism, subjectivism and is concerned with describing phenomena with words (Bryman, 2012; Quinlan, 2011). One should consider which approach is most practical given the requirements of the question and objectives, and resources available (Bryman, 2012; Saunders et al., 2009; Robson, 2011). Generally, variance questions are answered with quantitative methods (Robson, 2011). Variance questions or models are ones that attempt to answer 'what'

questions and use statistical methods to assess relationships between predictor and outcome variables (Robson, 2011; Van de Ven, 2007).

A quantitative method has been employed in this study as the objective is to answer a variance question. Additionally, a quantitative approach is the most common choice in the EE field (Bailey et al., 2017); with the exception of Kahn's ethnographic study, in reviewing the literature, the author did not find any measures for any of the three constructs that were not measured quantitatively and this also led the selection. This approach was also appropriate as it is a cheaper and quicker alternative to qualitative methods (Saunders et al., 2009; Robson, 2011).

3.4 Research Design

According to Saunders et al. (2009, p. 138) research design refers to the "overall plan for your research". They believe that research purpose, research strategy, research choices, time horizons, research credibility and ethics of research design are the elements which constitute research design. Thus, the author considers the chapters relating to the aforementioned to make up the sum of the research design.

Fundamental to creating a research design is to make certain that all choices for each aspect of design are made with the objective of answering the research question effectively and accurately (de Vaus, 2001; Robson, 2011). Therefore, the author will refer back to the research question regularly over the following sections. It must be designed "in detail at an early stage in the process" for quantitative design (Robson, 2011, p. 19). Ergo, all of the following choices were made before implementation.

3.4.1 Research Purpose

The nature of your research question dictates whether your answer is descriptive, explanatory or exploratory (Saunders et al., 2009). Exploratory is used when little theory or literature exists on a concept and so would be unnecessary in this case (Bryman, 2012). Explanatory purpose usually involves finding causation and description tends to "identify regularly occurring sequences of events" (Goodwin, 2010, p. 27). Therefore, this research has a descriptive purpose; it intends to describe psychological processes which lead to EE.

3.4.2 Research Strategy

Robson (2011) lists fixed, flexible and multi-strategy as the three main types of research strategy. When a rigid strategy is set in advance and isn't open to change throughout the process, it is considered fixed. With fixed-strategy, a strong conceptual framework is vital, and it is associated with quantitative methods. Fixed-strategy can be experimental or non-experimental, with surveys being a commonly used non-experimental type. Fixed-strategy allows the researcher to "identify patterns and processes" (p. 83), making it a suitable choice to meet the research objectives in this study as the research seeks to ascertain what normally occurs between Psycap and EE – to find out what the pattern or process is.

Saunders et al. (2009) list experiments, surveys, case studies, action research, grounded theory, ethnography and archival research as the principal types of strategy. Experiments are used to establish causation by manipulating a variable (the independent variable) and observing if this creates a change in another variable (the dependent variable) (Saunders et al., 2009; Robson, 2011). As there is a substantial amount of evidence to suggest that there is a positive relationship between PsyCap and EE, an experiment may have provided the opportunity to establish whether a causal relationship existed. For example, other studies have attempted to increase wellbeing through the intervention of meditation and calculated the impact (Cohn & Fredrickson, 2010). In order to include a mediator in an experiment, double randomisation would have to occur (MacKinnon et al., 2007). This, along with the skillset that would be required to carry out the intervention, meant that it was outside of the scope of this study in terms of resources required.

"[A] survey is a structured set of questions or statements given to a group of people to measure their attitudes, beliefs, values, or tendencies to act" (Goodwin, 2010, p. 472). A fixed, survey strategy, specifically a self-report questionnaire was chosen for this research. Firstly, as surveys are often used to investigate relationships between multiple variables (Robson, 2011; Saunders et al., 2009), and so it is an appropriate choice for this research question. Additionally, they can be carried out quickly and

cheaply in comparison to other types of strategies (Bryman, 2012; Gillham, 2000; Goodwin, 2010; Walle, 2015).

Levels of EE are most often measured with the use of self-report questionnaires (Bailey et al., 2017). When reviewing the EE literature, the author did not locate any measures for any of the three constructs that were not in the form of a self-report questionnaire (apart from Kahn's ethnographic research). Therefore, in line with other research, a fixed, survey strategy was considered an appropriate choice.

3.4.3 Research Choices

As stated previously, a quantitative approach has been chosen for this research project. A choice was made to use a mono-method rather than multiple-methods, meaning that only a single method was employed to collect data (Saunders et al., 2009). In this case a survey was carried out and data was analysed quantitatively.

There is an argument that using multiple-methods rather than a mono-method is advantageous (Saunders et al., 2009; Gillham, 2000). Some use triangulation, using both methods to try to "cancel out the limitations of one method by the use of another in order to cross-check the findings" (Bryman & Bell, 2015, p. 66). However multiple methods are rarely used in EE research (Bailey et al., 2017) and this would not have been a viable approach for the author given the resources available.

3.4.4 Time Horizons

Longitudinal designs mean that data is collected at multiple points in time, allowing the researcher to determine if changes have occurred over a period of time; they allow cause and direction of relationships to be determined (Robson, 2011; Saunders et al., 2009). Cross-sectional designs collect data at one point in time and analysis can be used to investigate the relationship between variables (Bryman, 2012; de Vaus, 2001; Saunders et al., 2009). Thus, a cross-sectional design was chosen as it allowed the author to meet the research objectives; data could be collected at one time and used to analyse a mediation relationship. Furthermore, this is an appropriate choice for this research study based on the resources available. Additionally, cross-sectional studies are the most common choice for EE research (Bailey et al., 2017).

3.4.5 Research Credibility

Reliability, validity and generalisability of research design must be considered in order to produce credible research findings (Robson, 2011; Saunders et al., 2009; de Vaus, 2001). A measure is considered reliable if the same results are found when the study is replicated (Goodwin, 2010; Saunders et al., 2009). Generalisability refers to whether the results of the research can be applied generally, or to other or the larger population and is referred to as external validity (Robson, 2011; Saunders et al., 2009). Validity refers to whether or not the study measures what it is supposed to measure and not another construct (de Vaus, 2001; Goodwin, 2010; Saunders et al., 2009), for example if using an instrument to measure engagement, then it should measure engagement and not job satisfaction. Steps should be taken to ensure that the survey remains reliable and valid (Saunders et al., 2009). Other research was consulted for reports of reliability and validity relating to the three scales that are used in this study, before implementation. All were previously found to be valid and reliable. Details are provided in the subsections of section 3.6: Research Instrument. Cronbach's alpha for this study is also presented in section.

In line with recommendations from Podsakoff et al. (2003), in order to prevent method bias and therefore, to uphold validity, participants were assured that their participation was voluntary and anonymous, and that there were no right or wrong answers to the questions, to prevent participants from giving what they might believe is a 'socially desirable' answer (p.888). (See Appendix A). Scales were kept as short as possible and were arranged, so that scale anchors changed between instruments to prevent respondents from answering without thinking about their answers.

3.5 Data Collection and Analysis

Selecting samples and analysing data make up the centre of the research onion (Saunders et al., 2009). In the following section, the data collection and analysis procedures are described.

3.5.1 Selecting Samples

"A sample is a selection from the population" (Robson, 2011, p. 270). Non-probability sampling, namely, self-selection, snowball and convenience sampling were used in

this study. Non-probability sampling is an alternative to probability sampling where samples are strategically chosen in order to make statistical inferences about a population. With non-probability sampling, the same inferences cannot be made (Saunders et al., 2009).

There are no guidelines relating to sample size for non-probability sampling (Saunders et al., 2009). However, regarding sampling in general, it is often said that bigger sample sizes result in more accurate results (Bryman & Bell, 2015; Robson 2011; Saunders et al., 2009). Subsequently, the author aimed to collect as many responses as possible. A minimum target of 100 people was set with a five-week recruiting period to attain this number.

Convenience sampling occurs when participants are chosen at random but in a manner that allows ease of accessibility (Bryman, 2012; Robson, 2011). Accordingly, it was a necessary choice in this case. However, the decision was also guided by other EE research as well (e.g., see Meintjes & Hofmeyr, 2018; Rich et al., 2010; Salanova et al., 2014). This approach was taken with the recruitment of friends, family, colleagues and classmates. The link was emailed or texted to the aforementioned with an invitation to participate. A drawback of this method is that findings cannot be generalised (Bryman & Bell, 2015). Snowball sampling was implemented when friends and family forwarded the survey to others to complete. Self-selection sampling was used in posting the questionnaire to the website, Call for Participants (Call for Participants, 2019). Visitors to the site could choose to participate in the study. The researcher paid £20 to post the survey on the site. Self-selection and snowball sampling are also considered problematic as they do not tend to be representative of the population (Bryman & Bell, 2015; Saunders et al., 2009; Robson, 2011). Self-selection is controversial because if participants self-self into the study, they may have an interest in the topic and therefore their perspective will possibly be different from the general population which can skew results (James Jr., 2006).

3.6 Research Instruments

EE, PA and Pscyap were all measured with published scales which have previously been proven to be valid and reliable.

3.6.1 Employee Engagement Scale

As mentioned previously, EE was measured using the 18-item JES developed by Rich et al. (2010) based on Kahn's (1990) theory of EE. (See appendix B). The instrument is made up of three subscales, measuring physical, emotional and cognitive engagement. Participants were asked to think about their experience at work and respond to statements such as "I exert my full effort to the job", on a Likert scale with the following range: 1 = strongly disagree, 2 = disagree, 3 = neither agree or disagree, 4 = somewhat agree, 5 = strongly agree. The scale has previously been found to be valid (Chaurasia & Shukla, 2014; Rich et al., 2010). Internal consistency was found in previous studies with Cronbach's alpha tests: $\alpha = .95$ (Rich et al., 2010); $\alpha = .96$ (Shuck & Reio Jr., 2014); $\alpha = .97$ (Park et al., 2017).

3.6.2 Positive Affect Scale

As highlighted previously, PA was measured using the I-PANAS-SF (Thompson, 2007). (See appendix C). This scale was adapted from the Positive and Negative Affect Schedule created by Watson et al. (1998) to create a shorter instrument with language that more appropriate for using internationally (Thompson, 2007). It can be beneficial to use a shorter scale when multiple variables are being measured, as it combats the effect of respondent fatigue, which should make the participants answer more carefully (Podsakoff et al., 2003; Thompson, 2007). Thinking about themselves and how they normally feel, participants were asked to rate how often they generally experience specific emotions, for example, "inspired". This was measured with a Likert scale with anchors ranging from 1 = never, 2 = rarely, 3 = sometimes, 4 = very often, 5 = always. Asking participants how they felt 'in general' rather than at a specific moment in time, meant that the questionnaire tested trait affect rather than state affect (Wefald et al., 2011, p. 527). Participants answered all 10 items from the scale, however, only the five items related to PA were analysed. The PA scale was found to be valid and reliable with an alpha coefficient of .84 (Thompson, 2007).

3.6.3 Psychological Capital Scale

Psycap was tested with the 24-item Psycap instrument (Luthans et al., 2007) which is made up of four sub-scales measuring self-efficacy, hope, resilience and optimism.

(See appendix D). Participants were asked to read a statements describing how they felt about themselves, for example, "I feel confident helping to set targets/goals in my work area", and indicate their levels of agreement or disagreement using a Likert scale with the following range: 1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = somewhat agree, 5 = agree, 6 = strongly agree. This instrument has previously been found to be valid (Park et al., 2017; Luthans et al., 2007). Internal consistency was found for the full scale in previous studies with Cronbach's alpha tests: $\alpha = .90$ (Park et al., 2017); $\alpha = .95$ (Avey et al., 2008); $\alpha = .92$ (Sampath Kappagoda et al., 2014). For the subscales, self-efficacy, $\alpha = .86$, hope, $\alpha = .85$, resilience, $\alpha = .73$, optimism, $\alpha = .73$ (Singh & Singh, 2017). Avey et al. (2008) reported coefficients of over .7 for each subscale.

3.7 Survey Implementation

The questionnaire was created through Google Forms. As well as the three questionnaires discussed previously, participants were also asked to confirm their age, gender, location, organisational tenure and type of work. (See appendix E). Participants answered questions relating to gender, location and type of work by clicking on a pre-inserted answer. They typed in their age and number of years that they had worked in their job. The questionnaire order could not be randomised so they were put in the following order: Psycap, PA, EE so that anchors changed between scales to help prevent participants clicking on answers without thinking about their response (Podsakoff et al., 2003). It is vital that the survey is well presented (Bryman & Bell, 2015) so care was taken to create a clear, presentable survey.

3.7.1 Pilot Study

A pilot is particularly important in a fixed-research strategy, one that does not have room for flexibility or to adapt throughout the process (Robson, 2011). The form was sent to five people in advance of the recruiting period in order to assess if there were any issues with the survey format or question clarity. Feedback confirmed that the questionnaire was ready to be formally launched and no further changes were made after recruiting began.

3.7.2 Participants

The only criteria for taking part in the study was that participants were in employment and over 18 years old. The questionnaire was designed so that participants could not proceed further with the survey if they answered that they were under 18 years of age or unemployed.

3.8 Analysis

After the survey was completed, a file was downloaded from Google Forms and saved on a password protected personal computer. In line with advice from Adams et al. (2014), it was checked to make sure that all data had been downloaded accurately and no information was lost.

Next, the data was prepared for the statistical analysis software which was to be employed for the analysis: Statistical Package for the Social Sciences (SPSS). SPSS is very popular in the social sciences and is often used to carry out the Baron and Kenny mediation (Preacher & Hayes, 2004). As data must be in numeric format to be analysed in SPSS (Groves et al., 2002), Microsoft Excel was used to manipulate the data into numerical form before it was uploaded to SPSS (known as coding).

Before carrying out any analysis, the original scales were consulted for directions on use. Questions 13, 20 and 23 from the Psycap questionnaire were reverse coded. Then total scores for the following variables were calculated: Psycap, self-efficacy, hope, resilience, optimism, EE and PA. This resulted in 12 variables including the demographic variables.

Descriptive analysis, frequency analysis, t-tests and Pearson correlations were carried out. Regression equations were then undertaken to test for mediation following the guidance of Baron and Kenny (1986) which is the most popular method of conducting mediation analysis (MacKinnon et al., 2007). In the mediation analyses, age, gender and employment length were controlled for. The results of these analyses will be presented in Chapter Four: Analysis and Findings.

3.8.1 Cronbach's Alpha Coefficients

Cronbach's alpha coefficients are usually calculated in order to test for reliability, specifically for the internal consistency of the scale (Pallant, 2016; Peterson, 1994). This was carried out for EE, PA, Psycap, self-efficacy, hope, resilience and optimism. The results are presented in Table 1. A Cronbach's Alpha of .7 is recognised as an acceptable result, indicating that the scale has internal consistency (Peterson, 1994; Ouweneel et al., 2011).

Table 1: Cronbach's coefficient alphas

Variable	Coefficient Alpha
Employee Engagement	.96
Positive Affect	.66
Psycap	.89
Self-efficacy	.81
Hope	.78
Resilience	.74
Optimism	.68

3.9 Ethical Considerations

No harm should come to participants, their participation must be informed and voluntary, participants should not be deceived, and confidentiality and anonymity are of utmost importance (Bryman, 2012; Quinlan, 2011). Once planned out, the research design should be assessed for harmful features (Gravetter & Forzano, 2018). Steps were taken to meet all of these criteria. As this was an online survey, there was no reason to believe that any physical harm could come to participants. However, as some items dealt with potentially upsetting or triggering subject matter, the debrief provided contact details for a local mental health charity in Ireland. For participants taking part outside of Ireland, the debrief noted that mental health charities would be available to them locally. (See appendix F). Participants were informed that their involvement was voluntary and that they could quit the survey at any time by closing their browser. No names or identifying information were collected with the questionnaire and the researcher was the only person with access to the data.

In line with the recommendations of Gravetter & Forzano (2018), participants were given as much detail as possible in advance of the study, in relation to what was

required from them to take part, without disclosing many details about the aims of the study; this informed participants in line with ethical standards without leading their responses in a particular direction. They were also given contact details for both the researcher and the research supervisor in the case of any issues arising (also available on Appendix F). No issues arose.

3.10 Limitations of the Research Design

A number of limitations applied to this study. Self-report surveys have their limitations: the researcher cannot control how honestly they answer questions or explain what the question means if the respondent does not understand (Bryman & Bell, 2015). Self-reports are also problematic as it can facilitate common method bias which can jeopardise the validity of the findings (Podsakoff et al., 2003).

While survey methods are popular due to the speed at which they allow data to be collected and their cost effectiveness (Robson, 2011; Saunders et al., 2009), they are not without their issues, for example, you cannot control for participant mood which could impact their responses (Gillham, 2000) or participants could answer incorrectly due to tiredness (Robson, 2011). This could have a significant impact if factors such as time of day or weather impacted the mood or energy levels of a significant number of respondents at once, particularly as one of the constructs being measured is affect.

A mixed-method approach has gained traction for the fact that it allows an all-round view of the phenomenon to be investigated (Gillham, 2000; Saunders et al., 2009). A similar study with an additional qualitative element may have facilitated a more comprehensive study and the limitations of each method may have helped to offset limitations of the other (Bryman & Bell, 2015). Particularly as there is discord over the definition of EE, a qualitative aspect would have allowed participants to communicate their experience of engagement, in their own words. The subsequent qualitative data collected may have contributed to the discourse on the meaning of EE.

Additionally, as non-probability sampling was used, there is a low likelihood of the sample used being representative of the population (Saunders et al., 2009) because it is possible that those self-selecting do so as they have an interest in the topic and so

may influence the results in a direction that is atypical (James Jr., 2006). Therefore, the results of this study cannot be generalised to the total population.

3.11 Conclusion

In this chapter, the research onion was introduced as a framework which was used to plan the methodology. In each section that followed, various and appropriate methodologies were considered, and decisions were made on the most suitable option for this study which would allow the research questions to be answered. EE literature also provided guidance on appropriate options and the resources available to the researcher sometimes influenced the choice.

A pragmatic philosophical stance was adopted as it allowed the research question to be answered in the most effective way, resulting in an objectivist and positivist positioning. The breadth of research available on the three topics made deduction an apt choice. A quantitative approach was followed in line with conventional EE research practice (Bailey et al., 2017).

Research purpose, research strategy, research choices, time horizons, research credibility and ethics of research design were considered under research design, making up the plan for the study (Saunders et al., 2009); a thorough plan was created in advance of implementation. A cross-sectional design was chosen over longitudinal design, as it is suitable for examining the relationship between variables (Bryman, 2012; de Vaus, 2001; Saunders et al., 2009) and it was quick and cheap to implement. This "time horizon" along with mono-method and survey strategy are most commonly used in EE research (Bailey et al., 2017). These choices were also regarded as appropriate to meet the research objectives and accordingly selected for this study.

Measures undertaken to ensure research credibility were outlined, including checking scale reliability and validity in advance of implementation and following recommendations by Podsakoff et al. (2003). Ethical considerations were taken into account and consequently, appropriate steps were taken to ensure that no harm came to participants. Limitations of the research design were then discussed.

Details on the survey instruments for EE, Psycap and PA were provided. Self-selection, snowball and convenience sampling were employed to recruit participants and the limitations of these methods were outlined. Preliminary information was provided on how the data would be analysed, including the methods (Baron & Kenny, 1986) and systems (SPSS) which would be used. Cronbach's alpha was presented for each variable.

Chapter Four: Analysis and Findings

4.1 Introduction

This chapter will describe the analysis that was undertaken to meet the research objectives. First, the descriptive and frequency statistics will be presented to provide an overview of the demographics of respondents; frequency statistics are provided for the categorical variables of gender, the location of the participant, and classification of work; descriptive statistics are presented for the continuous variables of age and organisational tenure. T-tests and correlation analysis will then be presented. Lastly, the results of the mediation analysis in line with directions from Baron & Kenny (1986) are outlined.

106 people responded to the survey. One of the respondents was unemployed so was unable to complete the survey through to the end. The data belonging to this participant was deleted before analysis began so tests were carried out with the data of the remaining 105 respondents who answered all 52 items. As mentioned in the last chapter, before beginning analysis, the original scales were consulted and consequently, total scores were calculated for the Psycap, self-efficacy, hope, resilience, optimism, EE and PA variables. This was considered an appropriate step as there was no missing data for any respondent.

4.2 Descriptive Analysis

Descriptive statistics allow the researcher to briefly describe the characteristics of large amounts of data (Kerr et al., 2002). The next two sections provide a breakdown in relation to the demographics of the participants in the form of descriptive and frequency statistics.

4.2.1 Frequency Statistics

Frequency statistics are presented for the categorical variables of gender, location and classification of work in Table 2. As the table shows, a higher number of females (n = 65; 61.9%) responded to the survey than males (n = 40; 38.1%); the majority of

participants were located in Ireland (n = 65; 61.9%) with a smaller number (n = 40; 38.1%) taking part outside of Ireland.

In relation to work classification, frequency testing showed that the largest number of respondents classified themselves as working in professional occupations (n = 50, 47.6%). Results of this test suggest that this sample is disproportionately made up of those in professional work. However, there may have been some ambiguity in the options that were provided to participants when answering this question (although this was not flagged in the pilot study). Therefore, this may not be a completely accurate portrayal of the work classification of participants.

Table 2: Work classification, location and gender frequency statistics

Variables	Number	Percent
Location		
Ireland	65	61.9
Outside of Ireland	40	38.1
Gender		
Female	65	61.9
Male	40	38.1
Work Classification		
Manager	17	16.2
Professional	50	47.6
Technicians and associate professionals	4	3.8
Clerical support workers	13	12.4
Service and sales workers	13	12.4
Craft and related trades workers	1	1.0
Plant and machine operators and assemblers	1	1.0
None of the above	6	5.7

4.2.2 Descriptive Statistics

Descriptive statistics are presented for the continuous variables of age and organisational tenure. (See Table 3). The mean age of participants was 32.50. The youngest participant was 20 and the oldest was 70 years old. Frequency testing showed that 35-year-olds made up the highest percentage of participants (n = 13, 12.4%). Organisational tenure ranged from less than a year to 30 years with the mean length of employment being 5.89 years. Frequency testing revealed that the highest percentage of participants claimed to have worked in their current job for one year

(n = 25, 23.8%). A histogram for age and tenure showed that they were both negatively skewed.

Table 3: Organisational tenure and age descriptive statistics

Variables	N	Minimum	Maximum	Mean	Std. Deviation
Org. Tenure	105	.0	30	5.89	6.19
Age	105	20	70	32.50	7.956

4.3 Inferential Statistics

In the following sections, the results of inferential testing are presented.

4.3.1 T-tests

Independent sample t-tests were carried out to compare the scores for males and females for the seven variables that would later be included in the mediation analysis: EE, PA, Psycap, self-efficacy, hope, resilience and optimism. No significant differences were found between males and females in any of the t-tests.

4.3.2 Correlation Analysis

Tests for normality, linearity and homoscedasticity were carried out in advance of the correlation tests and the data was found to be suitable for correlation analysis (Pallant, 2016). The relationships between Psycap, EE and PA and all of the Psycap subscales were assessed using a Pearson correlation and the results can be seen in Table 4. Results above .1 constitute a small effect, above .3, a medium effect and above .5, a large effect (Field, 2018). Strong positive correlations were found between each combination of EE, Psycap and PA while positive relationships were found between all variables meaning that high levels of one variable are related to high levels of the other variable. According to Baron & Kenny (1986), preliminary positive correlation results indicate that the variables are suitable for proceeding to mediation analysis. While rules for effect size are named above, they should be considered in line with results from other studies (Field, 2018; Pallant, 2016), which will occur in the discussion section.

Table 4: Mean, standard deviation and Pearson correlation coefficients

Variables	Mean	SD	1	2	3	4	5	6
1. Psycap	109.3	14.77						
2. Self-Efficacy	28.36	4.95	.80**					
3. Hope	27.37	4.47	.84**	.55**				
4. Optimism	27.56	4.5	.80**	.46**	.62**			
5. Resilience	26	4.31	.81**	.54**	.56**	.52**		
6. EE	70.68	13.59	.60**	.47**	.58**	.52**	.36**	
7. PA	19.34	2.69	.64**	.52**	.53**	.57**	.46**	.65**

Note: **All correlations are significant at the 0.01 level (two-tailed; $p < 0.01$).

4.3.3 Mediation Analysis

In mediation analysis, the independent variable is the one that influences the dependent variable, the dependent variable is altered by changes in the independent variable and the mediating variable is one that accounts for the relationship between the independent variable and the dependent variable (MacKinnon et al., 2007; Baron & Kenny, 1986). In this study, the independent variable in the analysis for the main objective is represented by Psycap. In testing for the sub-objectives, self-efficacy, hope, resilience and optimism are treated as the independent variables. In all tests, EE is the dependent variable and PA is the mediating variable.

As mentioned previously, mediation analysis was carried out using methods by Baron & Kenny (1986). The results follow. First, it should be noted that as recommended by Field (2018), post-analysis, all regression equations were tested for residuals, independent errors, linearity and homoscedasticity and no worrying effects were revealed. The next two sections outline the results.

4.3.3.1 Main research objective

Baron & Kenny (1986) suggest that three regressions should be carried out and that the results should reflect the following in order to establish a mediation relationship:

Step 1: a regression equation determines that the independent variable significantly predicts the dependent variable.

Step 2: a regression equation determines that the independent variable significantly predicts mediation variable.

Step 3: when the independent variable and the mediating variable are regressed on the dependent variable, the independent variable should significantly predict the dependent variable and this relationship should be weaker than the one found in step one.

The results are presented in Table 5. For the mediation analysis for the main research question, Psycap significantly predicted EE; Psycap significantly predicted PA; when both Psycap and PA were entered into the regression, the relationship between Psycap and EE was significantly reduced. As the coefficient beta did not reduce to zero, a partial mediation was found (Baron & Kenny, 1986). The results from these regressions indicate that PA partially mediates the relationship between Psycap and EE, suggesting that Psycap has both a direct influence on EE, and an indirect influence on EE through PA. Results also show that PA significantly, positively predicts EE.

Table 5: Beta coefficients found in mediation analyses

Variable	Step 1		Step 2		Step 3	
	EE		PA		EE	
	β	P	β	P	β	P
Psycap (and PA in step 3)	.58	<.001	.64	<.001	.28	<.01
Self-efficacy (and PA in step 3)	.48	<.001	.52	<.001	.2	<.001
Hope (and PA in step 3)	.56	<.001	.51	<.001	.32	<.001
Resilience (and PA in step 3)	.32	<.001	.45	<.001	.04	.68
Optimism (and PA in step 3)	.49	<.001	.56	<.001	.19	<.001

Note: The variables on the left-hand column are the predictor variable and the variables across the top of the table are the outcome variables. β = beta coefficient. P = p-value

4.3.3.2 Sub-Objectives

Baron & Kenny's (1986) method for mediation was also followed to meet the sub-objectives. Gender, age and organisational tenure were controlled for in every regression. The results can be seen in Table 5. Below, the sub-objectives are reiterated and the results of the analyses are outlined.

Sub-objective 1: To investigate whether PA mediates the relationship between self-efficacy and EE. In this mediation analysis, steps one and two from Baron and Kenny's (1986) mediation methods were satisfied. In the third step, the beta coefficient produced was significantly reduced from the one found in step one. Therefore, results found that PA partially mediates the relationship between self-efficacy and EE.

Sub-objective 2: To investigate whether PA mediates the relationship between hope and EE.
In this mediation analysis, steps one and two from Baron and Kenny's (1986) mediation methods were satisfied. In the third step, the beta coefficient produced was significantly reduced from the one found in step one. Therefore, results found that PA partially mediates the relationship between hope and EE.

Sub-objective 3: To investigate whether PA mediates the relationship between resilience and EE. In this mediation analysis, steps one and two from Baron and Kenny's (1986) mediation methods were satisfied. In the third step, although the coefficient beta was reduced, the relationship was not statistically significant. Therefore, the results indicate that PA fully mediated the relationship between resilience and EE.

Sub-objective 4: To investigate whether PA mediates the relationship between optimism and EE. In this mediation analysis, steps one and two from Baron and Kenny's (1986) mediation method were satisfied. In the third step, the beta coefficient produced was significantly reduced from the one found in step one. Therefore, results found that PA partially mediates the relationship between optimism and EE.

The results from these regressions indicate that PA partially mediates the relationship between self-efficacy and EE, hope and EE, and optimism and EE. These results demonstrate that these three Psycap variables have both a direct effect on EE, and an indirect effect on EE through PA. As resilience no longer significantly affected EE after PA was introduced to the equation, it appears that the impact that resilience has on EE occurs solely through the mechanism of how it influences positive affect.

Chapter Five: Discussion

5.1 Introduction

As highlighted in the introduction, the justification for this research study was to investigate the underlying mechanisms which lead to EE, specifically what makes Psycap and its sub-resources, lead to EE and accordingly, gain knowledge on how to constructively improve EE levels in organisations. The PA, EE relationship was also identified as being under-investigated, therefore there was an intention to close that gap in the literature.

In the following sections of this chapter the results of the study are discussed. The literature reviewed in chapter two is revisited in light of the findings of this study. In doing so, it is highlighted that gaps in the literature have now been filled. Theoretical and practical implications as well as limitations and suggestions for further research follow.

5.2 Main Research Objective

The purpose of this study was to investigate whether PA mediates the relationship between Psycap and EE. Results indicate that a partial mediation relationship exists. Subsequently, it is possible to reach four conclusions: Psycap may predict PA; PA may predict EE; Psycap may predict EE both directly and indirectly through the mechanism of PA.

As suggested in the literature review, the relationship found here may occur as Pyscap has a positive impact on a person's appraisal process which impacts their emotions (Lazarus 2006; 1993); their emotions are likely to positively impact their physical, cognitive and emotional functioning (Watson et al., 1998; Tugade & Fredrickson, 2004), by giving them access to increased cognitive and behavioural abilities (Fredrickson, 1998) which in this case may lead to engagement. Potentially PA may also increase EE through their impact on the three psychological conditions.

Although they have focused on the Utrecht EE, this study may offer some support for Sweetman & Luthans (2010), who theorised that PA mediates the relationship

between Psycap and EE. Their recommendation to empirically test this relationship seems to have been followed through only by Avey et al. (2008), albeit, they only tested for emotional engagement in their model. Therefore, this study agrees with Avey et al. (2008), who found that PA mediates the relationship between Psycap and emotional engagement.

These results also endorse other studies that conclude that Psycap positively predicts Kahn's EE (Chaurasia & Shukla, 2014; Park et al., 2017; Singh & Singh, 2017). While some researchers chose to use the Utrecht EE, this study supports findings that Psycap may predict EE (Chen, 2015; Paek et al., 2015; Joo et al., 2016).

The findings of this study offer support for theories by Robertson & Cooper (2010) and Robertson et al. (2012) that psychological well-being should be considered in line with EE. Additionally, it corroborates claims that cognition leads to affect, leading to EE (Shuck, Adelson & Reio, 2017; Shuck et al., 2017) and adds to the positive outcomes associated with happiness (Lyubomirsky et al., 2005). It also agrees that where happiness is high, EE is high (Schaufeli, 2017).

As mentioned in the literature review, the author was unable to locate any research that investigated the relationship between PA and Kahn's EE. Subsequently, this study contributes to the literature by finding that PA may predict physical, cognitive and emotional engagement (Kahn, 1990). Additionally, while evidence exists that Psycap predicts EE, the author is unaware of any study that has assessed whether PA mediates the relationship between Psycap and EE. This study adds to the EE literature by suggesting that the impact that Psycap has on EE appears to occur partially through the mechanism of how it influences PA.

5.3 Sub-Objectives

The sub-objectives of this study were to investigate whether PA mediated the relationship between the four Psycap constructs (self-efficacy, hope, resilience and optimism) and EE. To answer this question, four mediation tests were run following the methods of Baron & Kenny (1986). Results in each case revealed that self-efficacy, hope, resilience and optimism positively predicted EE; hope demonstrated the

strongest relationship, while resilience showed the weakest relationship. In each case, self-efficacy, hope, resilience and optimism positively predicted PA, with optimism showing the strongest relationship and resilience exhibiting the weakest one. In the final step PA was found to partially mediate the relationship between self-efficacy and EE, hope and EE, and optimism and EE. PA was found to fully mediate the relationship between resilience and EE, indicating that in the sample used in this study, the relationship between resilience and EE was fully accounted for by the effects of PA.

Hope appeared to have the strongest influence over EE. After PA was controlled for, hope had the strongest direct effect on EE and the weakest indirect effect meaning that those with high hope levels are likely to experience higher engagement levels even without the mediating influence of PA. Contrastingly, results indicated that resilience had no direct influence over EE and only relates to it through PA. What these results reveal is that a hopeful person is still very likely to engage at work even without the experience of positive emotions whereas a resilient person will only reach engagement through the production of positive emotions. Their resilience alone will not lead them to experience engagement.

Like the conclusion drawn under the first objective, the four Psycap constructs are likely to initiate this relationship due to their positive impact on PA; self-efficacy, hope, resilience and optimism possibly promote positive appraisals of events and therefore, positive emotions are formed. Thereafter, PA may influence EE in the same manner that was suggested under the first objective. One reason that hope might be such a significant contributor to EE is the 'goal directed energy' element of it. Hopeful people have willpower and a focus which they drive toward their goals (Synder et al., 1991). Kahn (1990) refers to the energy that an employee directs toward their role and also to the physical and emotional energy (psychological availability) that must be available to them to do so. There may be a direct link between this particular form of energy that hopeful people have and the energy which is required to engage. Additionally, perhaps hope partially predicts EE through its influence on the three psychological conditions required to engage. This will be explored further in the directions for future research section.

This result is notable as while personal psychological resources get quite a lot of attention in the EE literature, it appears that hope has been the least popular of the Psycap constructs, with resilience and self-efficacy leading the way (Bailey et al., 2017). Based on the results found here, hope is worthy of much more attention than it currently receives. Resilience, on the other hand, according to the results of this particular study, has a smaller influence over EE. Therefore, perhaps it deserves slightly less priority.

Results for optimism and self-efficacy were almost identical in terms of their influence over EE. Similar results were produced when both variables were regressed on EE, both before and after PA was controlled for, although self-efficacy proved to be a stronger predictor of PA than optimism. In fact, out of the four Psycap sub-variables, optimism had the strongest association with EE. Again, results suggest that as a partial mediation was found, both self-efficacy and optimism positively predict EE both directly and through the mediating effects of PA.

The only other study that the author is aware of that tests PA as a mediator between any of the Psycap constructs and EE is the one by Wang et al. (2017), which found that positive emotions partially mediated the relationship between resilience and EE. The contrast in the results found between the two studies may be down to the different scales used (they used different scales for all three variables) or from the cultural differences of the samples (their sample was made up of Chinese workers). However, results from both studies concur that resilience does significantly influence EE, although, in the results found in this study, the relationship is indirect.

Results from this study both agree and conflict with the findings of Singh & Singh (2017). While they found that the four Psycap resources positively predicted Kahn's EE, they found optimism to have the most significant impact on EE with resilience coming second. Again, cultural differences may have caused the variances as engagement varies between cultures (Schaufeli, 2017). This study also validates findings that self-efficacy and optimism may play a role in increasing Kahn's EE (Chhajer et al., 2018).

Although referring to the Utrecht model, this study offers support for the following studies that suggest that the following resources positively impact EE: resilience (Kašpárková et al., 2018; Wang et al., 2017); self-efficacy, optimism and resilience (Mache et al., 2014); and self-efficacy (Hidayah Ibrahim et al., 2019); hope (Ouweneel et al., 2012a; Ouweneel et al., 2012b); optimism and self-efficacy (Ouweneel et al., 2012a; Xanthopoulou et al., 2009). Although they admit that their results are unusual, this study also disagrees with those of Meintjes & Hofmeyr (2018) which found that resilience does not predict EE.

Results found in this study also reinforce findings from studies published in the Psycap, PA literature as well. In line with studies by Tugade & Fredrickson (2004), and Wang et al. (2017), results found in this study suggest that those high in resiliency are more likely to experience positive emotions. It also agrees with others who reported that high levels of optimism positively predict PA (Segerstrom & Sephton, 2010) and that self-efficacy and hope predict PA (Rego et al., 2012). Findings also support claims by Luthans et al. (2007) that self-efficacy, hope, resilience and optimism are more powerful together rather than individually, at least when they relate to EE and PA, as the results with the full Psycap variable revealed a stronger impact on EE and PA than any of the individual constructs.

As mentioned previously, with the exception of the study by Wang et al. (2017), the author understands that no other studies have investigated whether PA mediates the relationship between the four Psycap constructs (self-efficacy, hope, resilience and optimism) and EE, even though both affect and personal resources are popular topics in the engagement literature (Bailey et al., 2017). Consequently, this study offers valuable insight into the underlying mechanisms that link personal resources to EE. Two results stand out: the strong relationship between hope and EE and the full mediation relationship found with resilience, PA and EE.

5.4 Practical Implications

As mentioned in the introduction of this paper, part of the motivation in approaching these topics in this way was to highlight the mechanism underlying the relationship between Psycap and EE in order to develop positive work outcomes. These positive

outcomes are reflected in this section and the recommendations section in the next chapter.

Practical implications for both HRM practitioners and organisations emerge from these results. Increasing Psycap levels should result in a happier and more engaged workforce, and EE can be increased by developing both the Psycap and positive emotions of employees.

As highlighted many times in this paper, this appears to be the first study to empirically suggest that PA reacts positively with Kahn's EE. Results found infer that those high in PA will experience more physical, cognitive and emotional engagement. Ergo, organisations can endeavour to increase the psychological well-being of employees with some confidence that employees will be more physically present, mentally focused and concentrated, and emotionally connected to others (Kahn, 1990), which may increase performance (Chaurasia & Shukla, 2014; Chhajer et al., 2018; Rich et al., 2010). In line with existing theory, positive emotions must be promoted in organisations in order to foster a culture of high engagement (Ouweneel et al., 2012a; Ouweneel et al., 2012b; Robertson & Cooper, 2010; Robertson et al., 2012)

This study suggests that Psycap and PA should both be increased in order to promote higher levels of EE, however, as the design was cross-sectional, relationship directionality cannot be confirmed. Some longitudinal studies have found evidence to suggest that reciprocal relationships exist between personal resources and PA (Ouweneel et al., 2012a), and personal resources and EE (Xanthopoulou et al., 2009). Based on these studies, which support the broaden and build theory, it's possible that these three constructs offer each other mutual support. Therefore, organisations who prioritise the Psycap, psychological well-being and EE of their employees should reap the benefits produced from their mutually reinforcing relationship. At the same time, it should be noted that other longitudinal studies found that cognition initiated the personal resource, PA relationship (Tugade & Fredrickson, 2004; Segerstrom & Sephton, 2010), reinforcing theory from Lazarus (1993; 2006). Subsequently, and in line with results found in this study, organisations may benefit from choosing Psycap as a starting point to increase positive emotions, and in turn EE.

Resilience is prominent in the EE literature (Bailey et al., 2017) but according to the results found here, it does not have a direct relationship with EE, nor does it relate to EE as strongly as the other Psycap constructs do, implying that it is not as beneficial to EE as the other constructs. These particular set of results suggest that self-efficacy, optimism, and in particular, hope has a stronger relationship with EE, indicating that they might be more effective entry points through which to target engagement. That being said, as the sum of Psycap positively impacts EE through PA, for human resource practitioners who aim to increase EE in their workforce, the most constructive way to do so might be to incorporate Psycap and PA aspects to EE strategies.

Avey et al. (2008) conclude that Psycap may be more beneficial depending on the type of work that people do. Results found here could be of particular benefit to those working in more emotionally demanding jobs, for example, social workers or medical professionals. Suggestions on how to implement all of the above will occur in the recommendations section in the following chapter.

5.5 Limitations and Suggestions for Future Research

Many of the limitations found in this study are typical of those found in EE studies. Bailey et al. (2017) list many issues with the current state of the EE research, for example, studies are rarely replicated which stunts growth within the field because results cannot be corroborated or contradicted. On this basis, this study should be replicated to find out if the results found here occur in other samples. Equally, cross-cultural studies might help to clarify if the contrast in results between this study and others (Singh & Singh, 2017; Meintjes & Hofmeyr, 2018; Wang et al., 2017) can be attributed to the cultural orientation of the sample.

Bailey et al. (2017) also highlight other issues in the EE field, specifically that studies are usually cross-sectional in design, not allowing for findings of causation and that they tend to reply on self-report measures increasing the chance for common method bias to occur. Podsakoff et al. (2003) also highlight the same issues with self-report measures. The same limitations apply in this study. While the results found here suggest that Psycap may lead EE through PA, assertions regarding causation or

direction of the relationship cannot be made. Somewhat, imitating research by Ouweneel et al. (2012a), future research could investigate a mediation relationship between Psycap, PA and Kahn's EE over time in order to suggest causation and the direction of the relationships. Additionally, as well as self-reports, peer and supervisor reports could be collected to validate results found here. An additional limitation is that the PA scale had less internal reliability than is considered ideal.

Due to the sampling techniques (convenience, self-selection and snowball) employed in this study, results cannot be generalised to the general population (Bryman & Bell, 2015; James Jr., 2006; Robson, 2011; Saunders et al., 2009). A disproportionate number of professionals took part in this study. Further studies using probability samples would provide the opportunity to make generalisations.

In the literature review an argument was made, proposing that PA might impact EE through Kahn's three psychological conditions. Another study could investigate the relationship between PA and EE with the psychological conditions as a mediator using the scales created by May et al. (2004) to measure the conditions. Potentially, self-efficacy, hope and optimism also influence EE through the psychological conditions, for example, perhaps hopeful people are able to use their goal orientated approach when confronted with conditions which to others could signify lack of meaningfulness, safety or availability. Results found in this study suggest that PA fully accounts for the association that resilience has with EE, indicating that it would not be appropriate for this analysis but results by others (Wang et al., 2017) suggest that it should also be included.

Chapter Six: Conclusion and Recommendations

In this dissertation, background research and theory relating to EE, Psycap and PA have been discussed. The most relevant literature was presented and explored. In doing so, it drew together seminal theory and relevant empirical research to suggest that PA mediates the relationship between Psycap and EE, and that PA mediates the relationship between self-efficacy, hope, resilience and optimism, and EE. In the next section, the methodology used to test this relationship was discussed in detail. Then the results and findings were presented and subsequently discussed in the following chapter.

The main objective of this research was to find out if PA mediated the relationship between Psycap and EE. A partial mediation was found. Results from this study have suggested that Psycap positively predicts EE, both directly and through the mediation of PA.

The sub-objectives of this study were to investigate if the relationship between the four Psycap resources (self-efficacy, hope, resilience and optimism) and EE was mediated by PA. The results have indicated that PA may partially mediate the relationship between self-efficacy and EE, hope and EE, and optimism and EE. In this study, PA was found to fully mediate the relationship between resilience and EE.

6.1 Recommendations

Based on the results of this study, if organisations aim to develop a more engaged workforce, they should align Psycap and PA into EE strategy - according the literature presented and the results found in this study, it seems clear that Psycap and PA have a significant positive influence over EE. Therefore, to implement EE initiatives without actively including Psycap and PA elements is a wasted opportunity. Recommendations on how to execute this follows in the next four points.

1. Provide Psycap Training: Psycap can be developed through training interventions (eg. see Luthans et al., 2007; Luthans et al., 2010). Leaders have been shown to have a significant positive impact on the Psycap of their

followers both through the direct impact of their own Psycap levels (Chen, 2015) and through empowering leadership (Park et al., 2017). Therefore, training for both employees and leaders is recommended to increase Psycap at all levels of the organisation.

2. Increase Employee PA: EE levels should also be targeted directly through PA. Well-being at work can be successfully increased when it is championed by employers who put corresponding measures in place for staff to access (Suff, 2019). Cohn & Fredrickson (2010) found that positive emotions can be increased with loving kindness meditation and higher levels of mindfulness predict positive emotions which is particularly conductive if Psycap is low (Avey et al., 2008). Therefore, organisations should encourage employees to meditate. Where the resources are available, mediation classes should be funded and provided on site.

3. Integrate Psycap and PA into Core HRM Practices: Albrecht et al. (2015) recommend targeting EE through selection, induction, training and development and performance management. Psycap and PA should become part of the organisational culture. The aforementioned HRM practices should then align with the culture.

4. Corresponding to the results found in this study, hope should be targeted to increase Psycap and PA. This can be encouraged with goal-setting. Goals should be "specific, measurable, challenging, and yet achievable" and broken down into small manage objectives in order to increase hope in employees (Luthans et al., 2007, p. 69).

6.2 Timelines for Implementation of Recommendations

Timelines will differ between organisations depending on the resources available and potentially depending on the urgency with which change needs to occur. For example, if an organisation was to implement some of the measures recommended in the previous section, in order to improve the engagement levels of an already highly engaged workforce, then these initiatives or changes could be carried out over time, in a fashion dictated by the resources available. Alternatively, if an organisation was

struggling with EE, it would be recommended to initiate changes quickly and also to view changes as being long term, something to lock into the culture.

6.3 Costs Associated with the Recommendations

Like timelines, associated costs will vary from one organisation to another, depending on the resources available and how much change is required. For a small medium enterprise, they might like to implement many of the recommendations above, but only have funding for leader training (for example). These costings would vary greatly to that of a large multinational organisation that have a large budget to implement all of the recommendations and dedicated engagement specialists within the HR team.

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Appendix A: Survey Cover Page

Psychological Capital, Positive Emotions and Employee Engagement

This research is being carried out as part of a Masters dissertation in National College Ireland. The objective of this study is to explore the relationship between Psychological Capital, Positive Emotions and Employee Engagement.

Your participation in this research is anonymous. No identifying or personal information will be recorded from the survey, including information such as IP address or usernames, so that your response cannot be identified.

Your participation is completely voluntary. You can withdraw from the study at any time by closing the browser window.

On the following pages, you will be asked a series of questions about yourself. There are no right or wrong answers to these questions. We are simply interested in your own perceptions and experiences. Please take your time when responding to these questions. Thank you in advance for taking the time to take part in this study.

By clicking 'next' on this form, you are consenting to participate in this study.

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Appendix B: Job-Engagement Scale

Items

Physical engagement
    I work with intensity on my job
    I exert my full effort to my job
    I devote a lot of energy to my job
    I try my hardest to perform well on my job
    I strive as hard as I can to complete my job
    I exert a lot of energy on my job

Emotional engagement
    I am enthusiastic in my job
    I feel energetic at my job
    I am interested in my job
    I am proud of my job
    I feel positive about my job
    I am excited about my job

Cognitive engagement
    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 am absorbed by my job
    At work, I concentrate on my job
    At work, I devote a lot of attention to my job

(Rich et al., 2010)

Appendix C: The International Positive and Negative Affect Schedule Short Form (I-PANAS-SF)

The International Positive and Negative Affect Schedule Short Form (I-PANAS-SF)
Question, Measure, and Item Order

Question: Thinking about yourself and how you normally feel, to what extent do you generally feel:
Items in order:
    Upset
    Hostile
    Alert
    Ashamed
    Inspired
    Nervous
    Determined
    Attentive
    Afraid
    Active
Interval measure: *never* 1 2 3 4 5 *always*

(Thompson, 2007)

Appendix D: Psychological Capital Questionnaire

Below are statements that describe how you may think about yourself **right now**. Use the following scales to indicate your level of agreement or disagreement with each statement.

(1 = Strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = somewhat agree, 5 = agree, 6 = strongly agree)

1. I feel confident analyzing a long-term problem to find a solution.

2. I feel confident in representing my work area in meetings with management.

3. I feel confident contributing to discussions about the company's strategy.

4. I feel confident helping to set targets/goals in my work area.

5. I feel confident contacting people outside the company (e.g., suppliers, customers) to discuss problems.

6. I feel confident presenting information to a group of colleagues.

7. If I should find myself in a jam at work, I could think of many ways to get out of it.

8. At the present time, I am energetically pursuing my work goals.

9. There are lots of ways around any problem.

10. Right now I see myself as being pretty successful at work.

11. I can think of many ways to reach my current work goals.

12. At this time, I am meeting the work goals that I have set for myself.

13. When I have a setback at work, I have trouble recovering from it, moving on.(R)

14. I usually manage difficulties one way or another at work.

15. I can be "on my own," so to speak, at work if I have to.

16. I usually take stressful things at work in stride.

17. I can get through difficult times at work because I've experienced difficulty before.

18. I feel I can handle many things at a time at this job.

19. When things are uncertain for me at work, I usually expect the best.

20. If something can go wrong for me work-wise, it will.(R)

21. I always look on the bright side of things regarding my job.

22. I'm optimistic about what will happen to me in the future as it

pertains to work.

23. In this job, things never work out the way I want them to.(R)

24. I approach this job as if "every cloud has a silver lining."

(Luthans et al., 2007)

Appendix E: Demographic Questions from Survey

Psychological Capital, Positive Emotions and Employee Engagement

* Required

Demographic Information

We would like to know more about your demographic information. Please answer the following questions.

What age are you? *

Choose ▼

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Psychological Capital, Positive Emotions and Employee Engagement

* Required

What is your gender? *

○ Female

○ Male

○ Prefer not to say

○ Other: _____

What country do you live in? *

Choose ▼

What is your employment status? *

○ Employed

○ Unemployed

How would you classify the work that you do? *

Choose ▼

How long have you been in your current occupation, in years? (Please just write the number, eg. for five years just write "5"). *

Your answer

Appendix F: Survey Debrief

Psychological Capital, Positive Emotions and Employee Engagement

Thank you for taking the time to complete this questionnaire.

The purpose of this study is to collect data on psychological capital, positive emotions and employee engagement. The data will be analysed to assess whether there is a correlation between psychological capital and employee engagement. Furthermore, the data will be analysed to assess whether positive emotions mediate the relationship between the two.

If you have been affected by any of the questions in this study please contact Samaritans on freephone 116 123, text 087 260 9090 (standard rates apply). If you live outside of Ireland, there will be similar helplines available locally.

If you would like to know more about this study, you can contact me at maria.mccrarren@student.ncirl.ie.

My research supervisor is Fearghal O'Brien and you can contact him on fearghal.obrien@ncirl.ie.

Thank you again for your time.

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Personal Statement

Writing this dissertation has been both challenging and rewarding in equal measures. I've been interested in the topic of employee engagement since shortly after I began the postgraduate diploma in HRM and studying it to this degree has convinced me that it is the area I would most like to work in. I'm convinced that considering the psychological process of employees, how it influences their behaviour in the workplace and how HR practices can affect that behaviour is the most interesting and attractive aspect of the profession.

I've learned a lot about the three main research topics relating to this dissertation, but I've also been introduced to the discipline of research for the first time. I was quite intimidated before I began, but with support from my supervisor, I soon found myself proactively and enthusiastically engaging with the process; I've really enjoyed learning about research methodology. The experience has really improved my critical thinking skills and I often find myself thinking of things that happen around me in terms of how it could be empirically studied to reveal unknown information or deeper meanings. If I ever participate in any further academic studies, I'd like to get the opportunity to carry out an experiment with a control and an intervention group in order to test for causality between variables.

Preparing for this project and studying this master's degree in general, has significantly improved my analytical skills as well as my ability to process and disseminate information. I believe that I've developed valuable insight into how I personally operate in my role at work and in the world, in general. Moving forward, I intend to apply the skills developed from carrying out this project, as well as what I've learned from the findings from this study to motivate both myself and others at work.

Submission of Thesis to Norma Smurfit Library, National College of Ireland

Student name: Maria McCrarren   **Student number:** 17115108

School: Business   **Course:** Human Resource Management

Degree to be awarded: Master of Human Resource Management

Title of Thesis: The Mediating Role of Positive Affect on the Relationship Between Psychological Capital and Employee Engagement: A Cross-Sectional Study

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