THE EFFECT OF MINDFULNESS IN ORGANIZATIONS ON EMPLOYEE ENGAGEMENT AMONG HEALTH CARE AND FACTORY WORKERS IN THAILAND
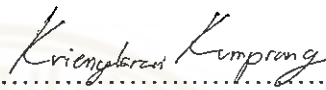
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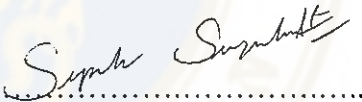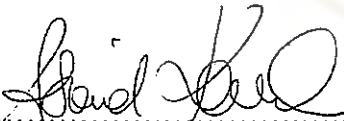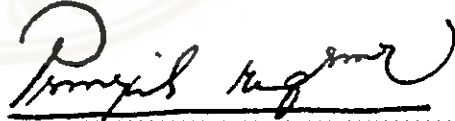for the degree of Doctor of Philosophy in Management
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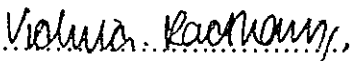
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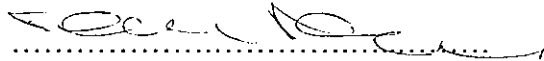
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THE EFFECT OF MINDFULNESS IN ORGANIZATIONS ON EMPLOYEE ENGAGEMENT AMONG HEALTH CARE AND FACTORY WORKERS IN THAILAND

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ABSTRACT

Purpose – The purpose of this dissertation is to investigate mindfulness in the workplace, and its effect on employee engagement. Further, the mechanisms of how mindfulness in the organization (MIO) positively associate with employee engagement is explored in an empirical study of health care workers and factory workers in Thailand.

Design/methodology/approach – Research design is based on a mixed method with a quantitative and qualitative approach, using two case studies. One case was studied from a public hospital context with 291 responses to a survey and 28 in-depth interviews from healthcare workers in one public hospital. The second sample was from a factory, with 178 surveys and 27 in-depth interviews from one factory in Thailand. The job demand-resources (JD-R) model was adopted as a theoretical framework to develop the in-depth interviews.

Findings – This study reveals an emerging theme that the "mindfulness in the organization (MIO)" initiative in Thailand has a potential to extend the JD-R model with mindfulness and emotional intelligence. In addition, the findings indicate that MIO can positively associate with psychological capital, emotional intelligence, and perceived resources, and alleviate perceived demands, which altogether have the potential to positively associate with work engagement, colleague engagement, and organizational engagement. This supports the quantitative finding that mindfulness significantly positively associates with employee engagement.

Research limitations /implications – As this study was conducted in the settings of the health care service sector and the manufacturing industry in Thailand, cross validation and comparison in other industries or countries will be required to advance the limited knowledge in this realm. This research has important implications for organizations and managers. Organizational leaders and managers should apply mindfulness practices in their organizations, since mindfulness in the organization can support employees' psychological capital, and emotional intelligence, and positively associate with engagement in the organization.

Originality /value – This study is the first empirical research that explored the topics of mindfulness in the organization (MIO) and engagement at various levels. It contributes to the theoretical advancement and limited empirical evidence in this field. This empirical examination supports existing arguments about benefits of mindfulness in occupational setting. Furthermore, this research incorporated mindfulness in the organization and extended job demands-resources model (JD-R model) with emotional intelligence as one of the components that positively associate with work engagement, colleague engagement and organization engagement.

KEY WORDS: Mindfulness / Work engagement / Colleague engagement / Employee engagement

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CHAPTER I
INTRODUCTION

Deriving from eastern philosophy and psychology (Weick & Sutcliffe, 2006), the concept of mindfulness started with the idea that "all thing are preceded by the mind" (Wallace, 1999, p.185). Mindfulness is a process in which an individual pays attention to what is occurring at the moment, both internal, e.g., thoughts, and sensations in the body; and external stimuli. It is also applicable both to the physical and the social environment (Bishop et al., 2004). Individuals need to observe those stimuli with no judgement or evaluation and without assigning meaning to them (Glomb et al., 2011). Additionally, mindfulness could be described as the process of gaining insight into the nature of one's mind and the adoption of a de-centered perspective from thoughts and feelings (Safran & Segal, 1996).

The quality of mind might be the root of the external circumstances in a person's life. Practicing mindfulness improves wellbeing (Hoffman, 2010). That is, mindfulness practices may improve the quality of life. Nevertheless, our day is filled with work responsibilities, other activities, and we also need to sleep. It is recommended that adult should sleep 7-9 hours according to the National Sleep Foundation (Hirshkowitz et al., 2015). On average, the standard working week is 40 hours (Caruso, 2006), that is, 8 hours each day: one-third of our waking time. This leads to the question, "Can mindfulness benefit an individual during the one-third of a day at work, or the half-day at home?"

An early application of mindfulness was in clinical settings, where it was shown to alleviate anxiety and depression (Hofmann et al., 2010; Irving et al., 2015; Teasdale et al., 2000) as well as severe physical illness such as cancer (Carlson & Garland, 2005). It has also been applied to stress reduction in non-clinical groups (Carlson & Garland, 2005; Cohen-Katz et al., 2005; Shapiro et al., 2005). For example, comparison with a control group demonstrated its effect in reducing stress (Chiesa &

Serretti, 2009). Such curative uses gradually showed the benefits of mindfulness for a healthy population, including in occupational settings.

An increasing number of organizations apply mindfulness (Islam et al., 2017). It has even been described as a mindfulness revolution (Purser & Loy, 2013). Other examples of the benefits of mindfulness practice include on wellbeing and stress-reduction (Hjortskov et al., 2004), and in clinical use (Baer, 2003; Biegel et al., 2009; Chiesa & Serretti, 2010), but studies in occupational settings are few, and scattered. Glomb (2011) has indicated how mindfulness can enhance a workplace. Furthermore, there are studies which showed an association of mindfulness with workplace outcomes (Dane, 2011; Klatt et al., 2015; Leroy et al., 2013).

However, mindfulness is not a panacea for all situations (Walsh, 2016) if we do not comprehensively understand the potential implications of mindfulness for an organization. There is a gap in understanding whether mindfulness in an organization is associated with employee engagement or not. Besides, there is a gap in understanding the mechanism of how mindfulness in the organization could associate with employee engagement. In addition, there is limited research in mindfulness and engagement which use the job demands–resources (JD-R) model to explain the phenomenon in a holistic view. By filling this gap, it contributes to the theoretical advancement and limited empirical evidence in this field.

This is why it is essential to investigate how the use of mindfulness can positively associate with employees' engagement with their organization. There is a gap in the evidence on the potential benefits of mindfulness practice both for employees and employers, which leads to two research questions:

- Does Mindfulness in Organizations (MIO) influence employee engagement in healthcare and factory workers?

- What is the mechanism for any such influence?

Ensuring employees are engaged in the organization could be crucial for a business. They are one of the key factors for success. Engaged employees are expected to deliver positive performance and go an extra mile for the organization (Schaufeli, 2012). With growing research on the benefit of mindfulness-based intervention in occupational settings, exploring the mechanism of how Mindfulness in Organization (MIO) could positively associate with engagement is crucial to benefit both the

employees and the organization. The aim of this study was to investigate the mechanism of how MIO can positively associate with engagement in the organization from a narrative of experience via thematic analysis. Understanding engagement could initially start from The job demands-resources (JD-R) model (Bakker & Demerouti, 2017) predict work engagement. A thorough literature search has found no qualitative study of the mechanism of how MIO influences engagement in the organization. In summary, the objective of this research is to explore whether Mindfulness in Organizations (MIO) influences employee engagement of health care workers and factory workers in Thailand and to understand the mechanism of Mindfulness in Organizations (MIO) which influences employee engagement of health care workers and factory workers in Thailand. Consequently, research findings could provide theoretical advancement to the existing literature in the field of mindfulness and occupational setting, especially employee engagement.
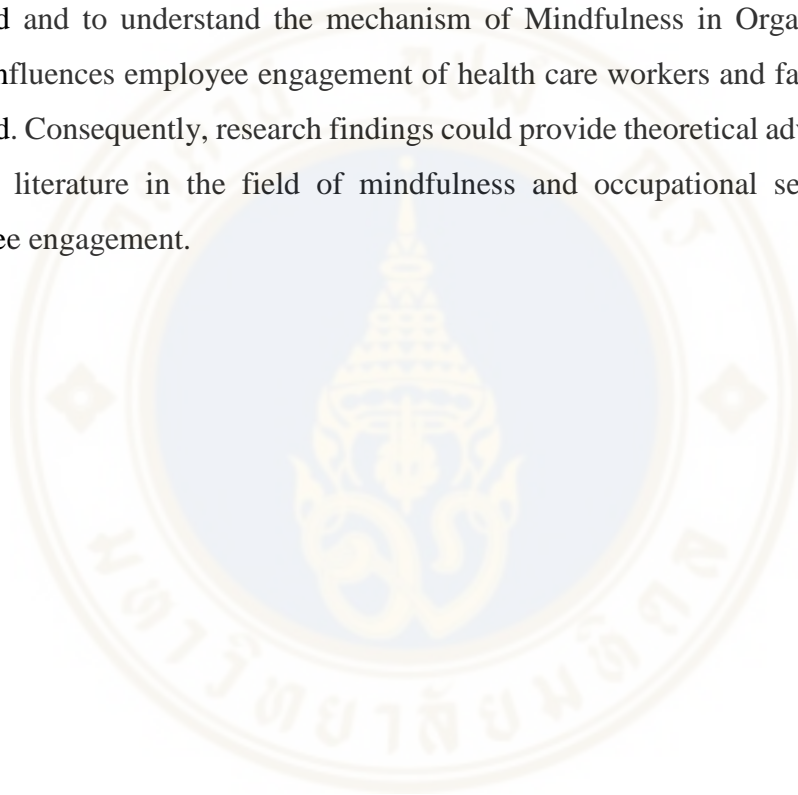
CHAPTER II
LITERATURE REVIEW

2.1 Mindfulness

Mindfulness practices are rooted in Buddhism, but have been used without reference to any religion. Historically, mindfulness is regarded as a concept created in the context of Buddhism around 500 B.C.E. It dates back even further as one of the elements in Brahmaic traditions on the Indian subcontinent (Cousins, 1996). In the past, mindfulness was misperceived as a non-experimental concept that could not be studied empirically (Dane, 2011). This misconception was progressively negated by studies which investigated mindfulness through an experimental methodology (Chiesa & Serretti, 2010). Studies indicate the effect of mindfulness practices on the brain by using neuroscience (Davidson et al., 2003; Hölzel et al., 2011). Mindfulness is characterized as focusing on the purpose in the present moment with no judgment over the experience unfurling moment by moment (Kabat-Zinn, 2003).

Mindfulness comprises of three main elements. First is being in the now, at the present moment (Thondup, 1998). Second, mindfulness involves awareness of both the inward and outward environment (Brown & Ryan, 2003; Dane, 2011; Glomb, Duffy, et al., 2011). Third is the absence of judgement. Individual could de-coupling or decentering from the circumstance and have a self-guideline which is gotten from mindfulness in oneself rather than driven by perception which oneself identified with the circumstance (Brown et al., 2007a). Brown and Ryan (2007b, p212) provided a definition of mindfulness as "A receptive attention to and awareness of present moment events and experience." According to Nyanaponika (1973), mindfulness is "the clear and single-minded awareness of what actually happens to us and in us at the successive moments of perception" (p. 5).

There are different techniques for attaining mindfulness. The two models of mindfulness are self-regulation of attention, and orientation to experience (Bishop et al., 2004). In the self-regulation of attention model, mindfulness is focusing on our current

experience (Bishop et al., 2004). This arises from observing and attending to varying fields of thoughts, feelings, and sensations from moment to moment by regulating the focus of attention. It is often designated as "the here and now." The self-regulation of attention aligns with the current formal meditation practices in Buddhism, which involve focusing attention and are recognized as Samatha or Shamatha (from Sanskrit). It is a meditation practice that preserves its focus on a specific object. This usually concentrates on the changes in the sensation of the flow of the breath, or on an exterior object (Lutz et al., 2008). Once attention shifts to distractions, which could be thought or emotional events, practitioners are taught to return attention to the chosen focus. This process aims to develop steadiness in the individual's attention, clarity and awareness in the mental state (Malinowski, 2013).

Orientation to experience is the second model of mindfulness to be discussed here. This starts with a determination to reserve and maintain an attitude of awareness in the mind, and the mind wanders whenever it inevitably moves away from the breath (Bishop et al., 2004). This also includes curiosity about the variations in the objects within the individual's experience at any moment (Bishop et al., 2004). In practice, practitioners are instructed to notice each thought, feeling, and sensation that arises in the stream of consciousness. Acceptance develops from this practice. Acceptance is explained as being open to the genuineness of the present moment (Roemer & Orsillo, 2002).

2.1.1   Outcomes of mindfulness

2.1.1.1 Mindfulness in Medical science

As previously stated, there is evidence of several benefits of mindfulness practice in a clinical setting (Baer, 2003; Chiesa & Serretti, 2010; Teasdale et al., 2000). Mindfulness-based practices have shown a relationship with a reduction in symptoms of mental, psychological as well as psychiatric conditions (Glomb et al., 2011). Other examples are beneficial effects on anxiety (Reibel et al., 2001), and depression (Hofmann et al., 2010). A study of child and adolescent outpatients at Kaiser Permanente hospital in the USA demonstrated a reduction in anxiety (Biegel et al., 2009).

Mindfulness also helps to reduce anxiety and stress in mentally healthy individuals (Chiesa & Serretti, 2009), psychological distress and depression for cancer patients in Sydney, Australia (Foley et al., 2010), stress in cancer patients in Sweden (Bränström et al., 2010) and overall psychological wellbeing of participants in the University of Massachusetts Medical School's Mindfulness Based Stress Reduction (MBSR) program (Carmody & Baer, 2008). A systematic review of the empirical literature has shown mindfulness to have beneficial impacts on mental health, and reduction of anxiety, stress, and distress (Lomas et al., 2017).

Mindfulness practices have also been shown to benefit physical health, e.g., with managing chronic pain. Research on individuals with a wide range of problems including illness-related stress, chronic pain, anxiety, and personal and employment-related stress who signed up for the MBSR program in the University of Massachusetts Medical School in Worcester during 2006 showed that mindfulness intervention such as Mindfulness Based Stress Reduction (MBSR) and Mindfulness-based cognitive therapy (MBCT) can decrease pain and symptoms (Carmody & Baer, 2008; Ljótsson et al., 2010) and increase physical health in clinical participants (Baer, 2003; Grossman et al., 2004).

Findings from laboratory settings illustrate that mindfulness is related to an alleviation in unpleasantness and sensitivity to painful stimuli (Grant & Rainville, 2009; Perlman et al., 2010). Kabat-Zinn (1982) has pointed out that the strategy applied by chronic pain patients has other benefits. For example, persistent exposure to sensations from chronic pain in the absence of a catastrophic outcome can lead to desensitization with a lessening in emotional responses to the pain sensation over time (Baer, 2003). A number of themes were found in a qualitative study in 27 older adults with chronic low back pain (CLBP) in USA (Morone et al., 2008): mindfulness helped participants to attend to pain, improved sleep, and achieving wellbeing. Various methods to reduce pain were used. These were distraction, increase in body awareness which leads to behavior change, improvement in pain coping, and lessening pain directly through the meditation. In addition, participants reported improved mood during and after meditation.

A study (Davidson et al., 2003) demonstrated long term global effects on improved quality of life. Aside from the benefits, and meditation may alter

brain and immune function in a beneficial way. A study of employees of a biotechnology corporation in Madison, Wisconsin, found an increase in the antibody titer to influenza vaccine in meditators when compared with non-meditators (Davidson et al., 2003). Mindfulness demonstrates its benefits in improvement of the well-being. In clinical populations, mindfulness has enhanced psychological wellbeing (Bränström et al., 2010; Carmody & Baer, 2008) and overall wellbeing in the literature review from 1979 to September 2008 (Chiesa & Serretti, 2010), quality in sleeping in outpatient child and adolescent who are under psychiatric care (Biegel et al., 2009; Roth & Robbins, 2004) as well as quality of life in literature review as well as a study of 51 patients with cancer in Australia and 85 patients with irritable bowel syndrome in Sweden (Chiesa & Serretti, 2010; Foley et al., 2010; Ljótsson et al., 2010).

2.1.1.2 Mindfulness in Neuroscience

From neuroscience research, continuing mindfulness meditation has been related to an increase in alpha activity in the brain (Treadway & Lazar, 2009), which is the sign of relaxation, and decreased anxiety and increased in gamma activity, which indicates emotional regulation (Glomb et al., 2011). Mindfulness meditation was related to increased left prefrontal activation in lateralized Electroencephalographic (EEG), which indicates positive emotion (Cahn & Polich, 2006). The changes witnessed during mindfulness meditation involve activation in region of the brain related to emotional regulation, attentional regulation, improved attentional focus and intensify in the awareness of internal body sensations (Cahn & Polich, 2006; Chiesa & Serretti, 2010; Treadway & Lazar, 2009). A study of volunteer respondents both with and without experience of meditation showed that there was an effect of meditation experience on pain unpleasantness rating, attributed to a lower emotional response to the pain stimulus, and lower negative emotional appraisal of anticipated (Brown & Jones, 2010).

By using functional magnetic resonance imaging (fMRI), Hölzel et al. (2007), explored which brain region would be particularly activated during focus attention meditation. After controlling for age, gender, and education, experienced meditators showed higher activation in the rostral anterior cingulate cortex (rACC) (Hölzel et al., 2007). This suggested the effect of meditation practices on the anterior cingulate cortex (ACC) (Cahn & Polich, 2006). An expansion in the thickness of

cerebral regions such as the middle prefrontal cortex is associated with internal awareness and attention and is observed in long-term meditators (Creswell et al., 2007; Frewen et al., 2010). Mindfulness improved brain circuits associated with emotional regulation (Davidson, 2000; Siegel, 2007). Improved left prefrontal activation seems to be an important trigger with several consequences, including positive emotion, motivation, and the improvement in the ability to modulate negative emotion arising from the firing of the limbic system (Glomb et al., 2011).

EEG techniques have been used to examine changes and activities in the brain's electrical signals during the mindfulness meditation in both novice and experienced meditators (Glomb et al., 2011). This research has essential implications as it reveals neurobiological changes in the brain as a mechanism from what individuals experience on an improvement in well-being and a decrease in mental and physical distress from mindfulness practices (Glomb et al., 2011). Moreover, there is supporting evidence on how mindfulness can improve brain function (Hölzel et al., 2011). For instance, individuals with a high dispositional mindfulness level showed superior activity in the prefrontal cortex, cingulate cortex, and lesser activity in the amygdala than individuals who has lower in dispositional mindfulness while taking part in various emotionally related assigned task (Wheeler et al., 2017).

Cerebrum imaging research of mindful individuals, focusing on the amygdala, has found brain changes known to be associated with more ability to control emotional reactions (Creswell et al., 2008; Creswell et al., 2007). Studies have shown that by empowering a psychological state of awareness in the present moment, mindfulness practices are a promising means of assisting individuals to adapt to distressing events (Hülsheger, 2015).

Stress leads to higher levels of cortisol hormone (de Quervain et al., 1998; Dominique et al., 2000), higher blood pressure and pulse rate (Hjortskov et al., 2004). This prepares a person to respond to threatening circumstances. Chronic stress can lead to cardiovascular disease like hypertension (Thayer & Brosschot, 2005). Mindfulness interventions improves function in prefrontal cortical locales, which are fundamental in stress regulation, while mitigates activity in neural parts significant in gating in fight-or-flight stress response such as the amygdala (Creswell, 2017). Another

neuroimaging study found that a short period of meditation actuated the area of the cerebrum related with positive sentiments toward others (Hutcherson et al., 2008a).

In a randomized comparison of mindfulness-based intervention vs. waiting-list control, Davidson et al. (2003) observed more actuation in the left anterior cerebrum, which is identified with positive feelings. This aligned with Garland et al., (2017) who proposed that mindfulness may lead to positive feelings. In addition, Fredrickson (1998) argued that positive feelings can improve cognition, action, and social resources.

2.1.1.3 Mindfulness in Psychological science

Mindfulness practices can expand positive feeling (Davidson et al., 2003; Garland et al., 2017). Employees with mindfulness are less occupied by adverse feelings (Shapiro et al., 2006). This implies that mindfulness may assist people to adapt to stress and enhance positive feeling. One randomized controlled preliminary trial (RCT) illustrated that a mindful body scan promoted more prominent increments in parasympathetic nervous system (PNS) activity, recorded through pulse fluctuation, and cardiovascular respiratory sinus arrhythmia (RSA) than progressive muscle relaxation (a standard relaxation training technique) (Ditto et al., 2006).

Mindfulness is known to assist a person to adapt to stress, and enhances relaxation. For stressed in individuals, numerous studies have shown that by empowering a psychological state of awareness in the present moment, mindfulness practices are a promising means to assist individuals to adapt to distressing events (Hülsheger, 2015). However, from the discussion above, it is clear relaxation through mindfulness interferes with job performance. One of the misconceptions about mindfulness is that it may lead to giving up in a difficult situation rather than striving for improvement.

In a state of mindfulness, a person has a high level of attention to stimuli from both internal and external environments with no evaluative judgement. This can be expected to be less stressful than an automatic reaction to the environment. Research on stress shows that sensing a lack of control over stressor stimulates cortisol reactivity (Liu & Mori, 1999). Meditation training enables the individual to shift attention away from the past or future and focus on the present moment (Bishop et al., 2004). So, meditation can alleviate an emotional appraisal of pain or stressor by moving

attention away from anticipating unpleasantness. This would be expected to be related to a decrease in brain processes accompanying anticipation of the stressor or unpleasantness of pain. An international survey by Zivnuska (2016) found mindfulness associated with reduced psychological distress.

Most researchers have portrayed mindfulness as an individual state-level variable that supplements intellectual, mental and physiological capacity in different ways (Hyland et al., 2015), the most regularly inferred to benefit being self-regulation (Glomb et al., 2011). From this, neurological explanations could play a part in explaining the behavior of employees. In studies about mindfulness, researchers have used several Mindfulness-Based Interventions (MBIs). For example, this included Mindfulness-Based Stress Reduction (MBSR), (Kabat-Zinn, 1990), Mindfulness-Based Cognitive Therapy (MBCT) (Teasdale et al., 2000), and Mindfulness-Based Self-help (MBSH) (Banerjee et al., 2017). Such training can help in decentering oneself from the situation. There is also evidence for a reduction in stress by healthcare professionals who practice mindfulness (Shapiro et al., 2005).

Mindfulness practices are additionally associated with positive feelings (Fredrickson et al., 2017). That is, mindfulness practices lead to positive gains beyond lightening of negative sentiments. Not just acquiring the advantage to utilize mindfulness practices to treat negative symptoms or diseases, mindfulness can promote the positive side of human capability.

In a literature review, William (2010) has pointed out that mindfulness can assist individuals to "learn to uncouple the sensory, directly experienced self from the 'narrative' self" (p.1). There is evidence indicating that mindfulness increases separation between self-worth and experiences such as interpersonal rejection (Heppner & Kernis, 2007). Despite the fact that the existing neurobiological research has not noticeably tested the decoupling hypothesis, Davidson (2010) suggested that mindfulness practitioners' brain might show a ''decreased connectivity between emotion processing and self-relevant processing'' (p. 10). One study, (Farb et al., 2010) compared a group trained in mindfulness in emotional reaction with a control group who had not received such training. All participants were exposed to an experience designed to make them sad. While there was no significant difference between the two groups in emotional reaction, the mindfulness-trained group reported

feeling complete acceptance of their sadness, while the control group found the emotion to be distressing (Farb et al., 2010).

Functional magnetic resonance imaging (fMRI) scans of a group who had received mindfulness training showed lower activity in the brain region related to self-referential processing (Farb et al., 2010). This alteration in neural pattern ''may stem from the objectification of emotions as innocuous sensory information rather than as affect laden threats to the self'' (Farb et al., 2010, p. 31). From what Glomb (2011) pointed out, decentering is the core process mindfulness could enhance in a work environment. Consequently, decentering process might assist employees to decrease stress from their perception toward their daily events.

In addition, examples of benefits in a nonclinical population are:

- positive effect from mindfulness, including a lessening in negative emotion in a study of 36 university students in Spain and 57 students at a small liberal arts college in USA (Delgado et al., 2010; Sears & Kraus, 2009)

- growing in hope of goal achievement (Sears & Kraus, 2009)

- positive emotions and life satisfaction in 139 working adults in USA (Fredrickson et al., 2008)

- overall wellbeing in a study of 76 experienced meditator in Sweden (Falkenström, 2010)

- and social connectedness from a study of 93 participants (Hutcherson et al., 2008b).

Furthermore, the influence of mindfulness on positive emotions is shown in a meta-analysis. There is evidence showing a positive relationship between mindfulness and positive mood state (Giluk, 2009). Glomb (2011) proposed that mindfulness may increase resilience from his literature review and interviews with mindfulness meditators.

Glomb (2011) presented two main processes associated with mindfulness, being affective regulation and resilience. Resilience is the capability to be nonreactive to thoughts and emotions, and the ability to accept them, which may be understood as decoupling and decreased automaticity (Glomb et al., 2011). The

competence to control negative thoughts and emotions is the main feature of resilience (Glomb et al., 2011).

2.1.1.4 Mindfulness in the Social Sciences

From interviews conducted with employees who had used mindfulness practices for at least one year, Glomb (2011) suggested that mindfulness can enhance empathy, and response flexibility. This implies that the person tends to be aware of their own physical and emotional signals, which allows them enhanced sensitivity to others' signals without a subsequent automatic reaction (Davidson, 2000; Siegel, 2007). Therefore, mindfulness may enhance healthy workplace relationships (Giluk, 2009). In addition, mindfulness practice might enhance cognitive ability because of enhanced attention. The Attention Network Test (Fan et al., 2002) has a component measuring executive attention. Using this test, two studies found that experienced meditators had superior performance in executive attention when compared against non-meditators, both in smaller error scores and in faster reaction time (Jha et al., 2007). Moreover, one longitudinal study in undergraduate students in China found that five days of meditation practice (Integrative Body-Mind Training) led to improved test results (Tang et al., 2007).

The perspective that mindfulness can have social benefits is supported by research findings that mindfulness enhances the quality of interpersonal connection (Hutcherson et al., 2008b). A study of psychology graduate students in Urban University, USA (Cohen & Miller, 2009) who practiced meditation less than 1.7 hours per month showed this to improve social connectedness.

There has been a huge increase in research on mindfulness during the past ten years. From 52 articles in 2003, the number increased to 549 in 2013 (Black, 2014) and to more than 4,000 in 2015 (Black, 2015). Expansion beyond clinical investigations has revealed potential benefit in the work environment as well (Aikens et al., 2014; Glomb, Duffy, et al., 2011; Klatt et al., 2015; Leroy et al., 2013).

There is emerging evidence for the benefits of mindfulness in the working environment (Glomb et al., 2011). Indications are that mindfulness may benefit employees in improved communication and better problem solving, so using MIO should benefit both employees and the employer. A study by Leroy (2013), shows an association between mindfulness and work engagement.

The number of organizations using mindfulness is consistently rising (Islam et al., 2017). Purser & Loy (2013) have described the trend as a mindfulness revolution. A remarkable model is the 'mindfulness' development as managerial phenomenon (Good et al., 2016; Purser & Milillo, 2015; Shapiro et al., 2015; Sutcliffe et al., 2016).

2.2 Engagement

Current evidence doesn't allow specification of the best methods to enhance employee engagement. A meta-analysis of 213 studies of work engagement by Shuck (2011) revealed four main approaches: a need-satisfying approach, a burnout-antithesis approach, a satisfaction-engagement approach, and a multidimensional approach.

1. The need-satisfying methodology was introduced by Khan (1990), who stated that work engagement can be expected to happen physically, cognitively, and emotionally. According to him, engagement needs three psychological conditions, being meaningfulness, psychological safety, and availability. Once *meaningfulness, psychological safety, and psychological availability* needs are met in their work environment, employees tend to be engaged *cognitively, emotionally and behaviorally* in their work role. Engagement is when employees center their energy toward organizational goals (Macey & Schneider, 2008).

Meaningfulness of work is when the employee perceives a return on the effort invested. (May et al., 2004) Similarly define meaningfulness as perceived return on investing energy in work.

Psychological safety is feeling able to invest oneself without fear of a negative outcome. It can come from supportive colleagues. These two psychological conditions specified by Kahn (1990) can be merged in the job resources as the factors which foster the engagement level.

The third condition, psychological availability, is a person's promptness to personally engage at a certain moment (Kahn, 1990).

2. In the burnout-antithesis approach, engagement is the opposite of burnout (Maslach et al., 2001), which are two extremes of a continuum. Three components of burnout are exhaustion, cynicism, and ineffectiveness. A reverse interpretation of

measures of these indicate level of engagement (Maslach et al., 1997). On this view, engagement is operationalized as the converse scores on the Maslach burnout inventory – general survey (MBI-GS; Maslach and Leiter 1997). There is support for this view from the neurological principle of improving pathological states by restoring normal brain activity (i.e., depression, psychosocial personality disorders; Seligman, 2002). Analogously, improving engagement is then treating burnout.

Burnout researchers have therefore investigated engagement. Schaufeli et al. (2002) devised a scale known as Utrecht Work Engagement Scale (UWES), which aims to quantify three components of engagement (vigor, dedication, and absorption). These scales have been tested on samples including students and employees from number of countries, the engagement scores have been found to have a negative relationship with burnout (Saks, 2008). Nevertheless, Johnson (2003) critiqued on Burnout-Antithesis approach in that it disregards the psychological interactions, Khan (1990) has described. In burnout approach, the job demands-resources (JD-R) model (Demerouti et al., 2001) states that work engagement results from the balance between the demands the work situation places on an employee, and the resources provided to meet these demands. This model was later extended with an introduction of personal resources (Xanthopoulou et al., 2007), which derived from the conservation of resources theory (Hobfoll, 2001, 2002). In summary, this model consists of personal resources, job resources, and job demands.

3. Third, the satisfaction-engagement approach, is the best known (Shuck, 2011). Satisfaction-engagement introduced an idea from positive psychology (Harter et al., 2002). Harter (2002) drew information from the Gallup organization to conduct an extensive investigation on employee engagement. In comparison with other approaches, the satisfaction-engagement has the advantage of being based on a much larger information base. The Gallup organization explained the concept of engagement as an inclusion and fulfillment from a person with energy for work (Harter et al., 2002).

The satisfaction-engagement approach uses a Gallup survey named Q12 to assess engagement. Its twelve questions measure an employee's antecedents to job resources. This is a self-report instrument, which may raise bias in the data. In addition, Q12 seems to concentrate only on job resources, there being no questions to gauge the employee's conduct. While Q12 is used more by practitioners than in academic

research, Gallup has utilized it to highlight the significant relationship between employee engagement and aspects of business like consumer satisfaction, productivity, and turnover (Harter et al., 2002).

Engagement can be depicted as the capacity to win the heads, hearts, and hands of employees to innate aspiration and passion for excellence (Fleming & Asplund, 2007). In the practitioner field, practitioners basically focus on productivity, customer satisfaction and edge over the competition (Zigarmi et al., 2009). If we compare this approach with Kahn's, we can see that assessing an employee's physical, cognitive and emotional engagement is more in tune with "heads, hearts, and hands." In the practitioner definition from Hewitt Associates LLC (2004), employee engagement is "the state in which individuals are emotionally and intellectually committed to the organization or group, as measured by three primary behaviors: Say […] stay […] strive" (p. 2). This reflects the view that an engaged employee will, in general, praise the organization, stay in the organization and strive for its performance.

4. The multidimensional approach, presented by Saks (2006) is the primary academic approach. Employee engagement is divided into job engagement and organizational engagement. As per Saks' definition (2006), employee engagement is a distinct construct including cognitive, emotional and behavioral components, relating to the role performance of each individual. This definition is in line with Khan's (1990) conclusion that engagement develops from cognitive, emotional and behavioral components. From Saks' investigation (2006) on 102 college undergraduates at a Canadian university, perceived organizational support predicted both job engagement and organizational engagement. Job characteristics could predict job engagement while procedural justice can predict organizational engagement.

In summary, Saks (2006) proposed that a good, supportive work environment, job characteristics, and fairness in the organization can support both job engagement or organizational engagement. Moreover, Saks's study suggested that job satisfaction, organizational commitment, and reduced turnover intention could be consequences of work engagement. The definition from Saks has both similarities and differences with what Khan introduced. Both address the role of performance at work. The difference from Sak's definition is the adjustment between the terms "job engagement" and "organizational engagement," which is absent from Kahn's definition.

Job engagement focuses on a person's work for which (Saks, 2006) "a persistent positive affective state… characterized by high levels of activation and pleasure" (p. 417). In comparison, organizational engagement refers to the engagement individuals have with the organization.

Although these two ideas are sensibly related, Saks clarified that they have different causative factors and outcomes (Saks, 2006). Despite the fact that the multidimensional approach has intuitive appeal, it isn't frequently used by the research community (Schaufeli, 2013).

2.2.1 Antecedents of engagement through job demands-resources (JD-R) model

In this part, antecedents of engagement will be presented through the JD-R model. Despite the fact that there are several antecedents of engagement, the JD-R model can assist us to categorize them into three major categories: *demands, resources and personal resources.* Classifying antecedents into three main categories helps us to understand an overview picture of engagement.

First, *job demands* refer to various aspects of the job that require physical and/or psychological effort from employees, and it associated with the cost to the employee in physical and/or psychological aspects. Also, job demands could manifest themselves in physical, psychological, job social or team, or organizational parts of the job (Crawford et al., 2010). Notably, job demands include high workload, time pressure, a high level of job responsibility, role overload, role ambiguity, and role conflict (Crawford et al., 2010). With an increase in job demands, further effort is needed in order to accomplish the task and prevent a decline in performance. This necessitates physical and psychological costs which could come in the form of fatigue and irritability (Demerouti et al., 2001).

Devoid of enough recovery, employees may get exhausted and eventually become disengaged. Employees are more engaged when job demands are low and they have the essential resources to perform their roles and handle the job demands (Saks, 2008). From a meta-analysis by Hunter and Schmidt (1990), job demands as a predictor of engagement is not consistent when compared with job resources, even though it shows a strong ability to predict burnout (Crawford et al., 2010).

The effect of job demands on work engagement depends on type of job demands (Crawford et al., 2010). When job demands are evaluated as burdens or hindrances (stressful demands that barricade personal growth, learning and goal attainment, such as role conflict, unclearness in the work role, or role overload), job demands are negatively related to work engagement. In contrast, if job demands are evaluated as challenges (stressful demands that help to promote specialization, personal growth, or future plans or a job that require high responsibility), then job demands are positively related to engagement. Nevertheless, it was found that both hindrance job demands and challenge job demands were positively related to burnout (Crawford et al., 2010).

Job demands had predictive power on work engagement in a study of 409 Finnish health care personnel over two years (Mauno et al., 2007). In addition, Bakker and Demerouti (2017) mentioned that applied research in organizations may be valuable in assessing job demands at the team or department level. Job demands from individual employees were aggregated into a score for job demands in departments (Jong & Ford, 2016). Nevertheless, there is limited research recognizing job demands at a higher level, such as the team or organization level. The study by Jong & Ford (2016) was an example of research that accumulated the scale of job demands at the job level, and used the results as a representative scale for the team level. There is a limited amount of research that has classified the job demands at different levels, leading Bakker (2017) to suggest that future studies about job demands should take a perspective at the demands on different levels apart from the job level only.

Second, *job resources* refers to physical, psychological, social, or organizational aspects of a job that have the function of facilitating the employees' ability to perform their job (Bakker et al., 2014). Also, resources could come in job, team or organizational aspects (Crawford et al., 2010). For instance, job resources could come in the form of job autonomy, job variety, work role fit (Crawford et al., 2010), meaningful work (May et al., 2004), job crafting (Bakker et al., 2014), opportunity for recovery at work (Brand-Labuschagne et al., 2012), social support, leadership (Schaufeli & Bakker, 2004), opportunity for development organization-wide (Crawford et al., 2010), a climate of psychological safety (Dollard & Bakker, 2010), organizational reward and recognition (Bernthal & Wellins, 2001; Moussa, 2013), and congruence in

organizational value (Rich et al., 2010). In addition, the literature review showed that job resources that predict work engagement may vary in different organizations. Essential resources are opportunities for development, performance feedback, autonomy, skill variety, leadership, fairness, and social support from co-workers and supervisors (Bakker & Demerouti, 2008).

A study of 805 teachers in Finland found that job resources are an antecedent of work engagement (Bakker & Demerouti, 2007). Work engagement seems to be particularly related to resources available in an organization. Additionally, from a study of 409 health care personnel in Finland, Mauno (2007) revealed that job resources predicted work engagement. This aligns with a meta-analysis conducted in 2010, which showed that job resources has a motivational role in several studies and that job resources have a positive relationship with work engagement (Halbesleben, 2010).

Apart from job resources, which mainly focus on resources at job level, and social support, which typically comes at team level, resources can come from the organizational level as well. For instance, perceived organization support and procedural justice are antecedents for engagement at the organizational level (Saks, 2006). Procedural justice is the perceived fairness of the means to an end or the process by which employees perceive an extent and dissemination of resources among employees of the organization (Skarlicki & Folger, 1997). Fasolo (1995) argued that procedural justice could have a positive association with perceived organizational support.

In contrast, a negative perception of procedural justice by employees is likely to have an adverse influence on their perceived organizational support. This suggests that a lack of procedural justice could lead to poor perceived organizational support, which altogether deters engagement level in employees. This raises a concern that factors that could be resources might be turned into a hindrance to engagement if they are implemented poorly or perceived inaccurately by employees.

Third, Bakker et al. (2011) pointed out that *personal resources* could be a crucial predictor of work engagement. Personal resources or psychological capital (PsyCap) consists of hope, optimism, self-efficacy, and resilience. Hope is directed at goals, and when essential, redirecting paths to goals to succeed. Optimism is creating positive attribution from accomplishing now and in the future. Self-efficacy is having

confidence or self-assurance to take on and invest in the crucial effort to prosper at challenging tasks. Finally, resilience is the ability to bounce back and even beyond to attain success when beset by difficulties and adversity (Luthans, Youssef, & Avolio, 2007).
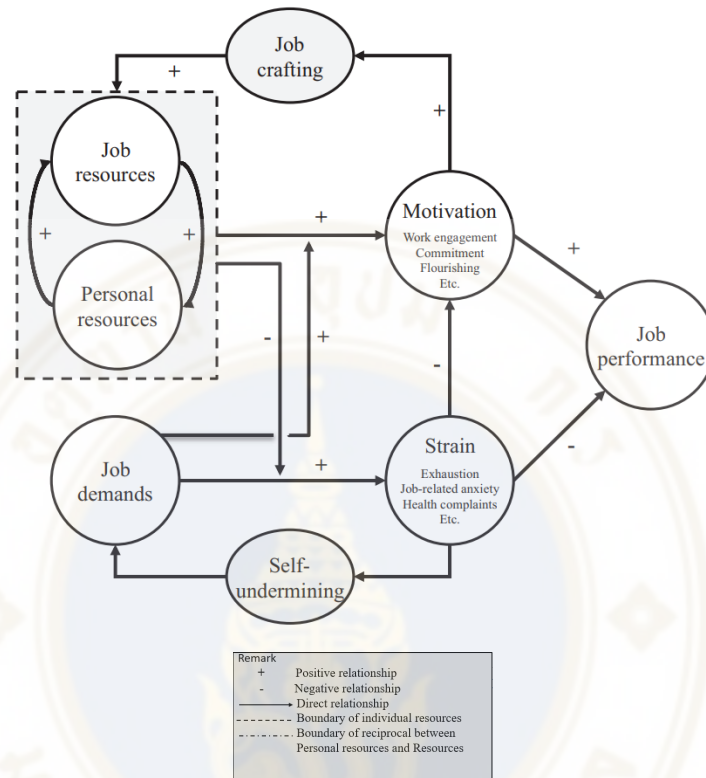
Figure 2.1 Existing job demands - resources model (Bakker & Demerouti, 2017 p. 275)

Figure 2.1 shows antecedents of work engagement, from personal resources and job resources with a reciprocal relationship (Xanthopoulou et al., 2009). The current model shows that job resources and job demands work through diverse processes; specifically motivational process for job resources and health impairment process for job demands (Bakker & Demerouti, 2017). Demands is what workers need to contribute as their physical or mental cost to accomplish the specific task. With an increment in demands, there is a potential to create pressure or stress for workers and this may damage the capability of employee to engage. The term "perceived demands" is introduced as a sign that demands workers to see or perceive through their own focal point, or the previous experience.

With assortment in the background and distinctive fundamental state of the past experience may happened. There is a tendency that people may have an autopilot assessment on the surrounding conditions. Unfortunately, this may leave the individual with an offensively conservative lens. In this way, the demands of the situation at work, team or organizational level may be unfairly negative. The model shows the path to job satisfaction, and that an engaged employee can effectively change their work to suit their work condition. On the other hand, an adverse outcome from health impairment may generate strain, for example, health complaints or stress. This strain could increase job demand (Bakker & Demerouti, 2017). The JD-R model has many advantages to enable us to comprehend the engagement process in employees.

JD-R model gives a wide picture that characterizes the factors workers need into two principal grouping: resources and demands. However, "This flexibility could be also the Achilles' heel of the model, as this comes at the cost of specificity and the quality of its predictions" (Bakker & Demerouti, 2017, p.278). Both job demands and resources are treated at the work level (Bakker and Demerouti, 2017). For certain components, it may be contingent upon the understanding of the person regarding those elements. For example, an increased workload assigned by the director could be seen as job resources in terms of variety and greater authority for the employee. Simultaneously, it could be interpreted as an imposition of job demands.

2.2.2 Importance of Employee Engagement

Employee engagement receives attention in both the academic and practitioner fields. Dozens of studies concentrating on employee engagement, including many meta-analyses, have been published within the past ten years (Saks & Gruman, 2014). Consequently, employee engagement has become one of the major topics in management (Saks & Gruman, 2014). Engagement levels are so important that their consideration should not be limited to the Human Resources department, but also be addressed by senior leaders. An organization with engaged employees should have *superior employee performance* and *better business results* compared to an organization with less engaged employees (Harter et al., 2002). Research conducted by Rich (2010) on 245 full-time firefighters in the USA revealed that engaged employees performed better than unengaged employees.

Meta-analysis derived from the Gallup database contains 42 studies covering almost 8,000 business units of 36 companies, showing that the average engagement level of individual business units or the whole organization can be associated with *business level outcomes* (Harter et al., 2002). Organizations with engaged employees showed higher shareholder returns, profitability, productivity, as well as customer satisfaction (Crawford et al., 2010; Harter et al., 2002). As mentioned by Fisher (2010 p.41), "If causality runs from attitudes to organizational performance, these effect sizes can translate into substantial annual dollar returns for more engaged business units." Therefore, the movement of organizations toward enhancement in engagement levels should foster organizational profitability. In addition, Bakker's study (2006) demonstrated that engagement can be a *crossover among team members*. Therefore, having engaged employees benefit not only the individual's performance, but also the performance of other team members. On the recruitment side, positive engagement level among employees is negatively associated with turnover intentions (Saks, 2006; Schaufeli & Bakker, 2004).

As a result, previous research has shown that high engagement levels in an organization generate positive outcomes. However, the trend of engagement levels is declining (Bates, 2004; Richman, 2006). Globally, employee engagement decreased in 2016 although it rebounded in 2017. Despite the fact that the Asia Pacific region reported its highest level of employee engagement at 65% in 2017, Thailand is one of the three countries within the region where engagement level has crashed, in contrast to general rebound trend across the Asia Pacific Region in 2017 (*2018 Trends in Global Employee Engagement | Aon Hewitt APAC*, n.d.). Thus, there is a need for further focusing on engagement levels in Thailand.

Levels of engagement can vary across occupations based on differences in job characteristics. For example, is evidence that different occupations have different engagement levels because of variations in the perceived quality of work life (Kanten & Sadullah, 2012). This finding aligns with research from Nielsen and Abildgaard (2012), who pointed out that the job characteristics of factory workers are characterized by inferior working conditions. In a study of 4,000 employees in the Netherlands, levels of engagement were lower among those with less job control, such as factory workers, when compared with professionals who had more job control, such as entrepreneurs or

managers (Smulders, 2006). This underlines the importance in applying mindfulness in organizations to foster employee engagement among factory workers.

Although factory workers face challenges that make them less likely to be engaged, it is fair to say that healthcare workers face even more challenging job characteristics. In dealing with patients and their relatives as they are forced to cope with stressful events, healthcare workers are confronted with demanding workloads and high levels of work stress (Demerouti et al., 2000; Levert et al., 2000). As mentioned by Lee & Ashforth (1996), stressful events and workloads can be classified as job demands, which means that maintaining a high engagement level is challenging for healthcare workers due to both stress and work demands. With this in consideration, factory workers and healthcare workers are the two main groups of focus in this study. Both occupations have a particular potential to be exposed to stress in their roles. Nevertheless, stress experienced by healthcare workers and factory workers may come from different aspects of their work roles. Investigation of the mechanism of how mindfulness in organizations could increase employee engagement is therefore needed.

In summary, everything that has been discussed in the previous part about the importance of employee engagement in organizations serves to illustrate that employee engagement is one of the key success drives for an organization. Also, there is a difference in engagement levels among different occupations. Therefore, understanding employee engagement is essential for both researchers and practitioners. Although the importance of employee engagement is well recognized for both the employee and the organization, achieving employee engagement is still challenging.

Engagement is one of the key areas organizations need to emphasize. Organization contribute resources to engage employees. Nevertheless, the black box of engagement isn't completely uncovered for either researchers or practitioners.

2.3 Mindfulness and Engagement

As stated in the introduction, mindfulness has many benefits beyond the clinical field and its effects on wellbeing, and these apply to the occupational context. From a study from Intensive Care Units personnel, Klatt (2015) suggested that mindfulness training does not only have an effectiveness in stress management, but also

improves positive organizational behavior. This differs from typical clinical studies which the main aim of mindfulness is to cope with psychological issues, including illness-related stress, chronic pain, and anxiety. Previous research has illustrated that the level of psychological wellbeing is associated with job performance (Lee & Ashforth, 1996). Moreover, psychological well-being is positively related to work engagement (Fairlie, 2011; Shimazu & Schaufeli, 2009; Simpson, 2009).

Researchers have shown the effectiveness of mindfulness-based interventions for stress reduction in various occupations, including firefighters, police officers, and prison guards (Chopko & Schwartz, 2009; Oginska-Bulik, 2005; Williams, Ciarrochi, & Deane, 2010). Reducing stress at work should positively associate with employee engagement. Role stress, stressful events, workload, and work pressure can be identified as components of job demands that predict burnout, including exhaustion and depersonalization (Lee & Ashforth, 1996). This implies an association between lessening in perceived job demand and work engagement. As mindfulness can help employees to cope with psychological distress in the work setting (Grégoire & Lachance, 2015), it alleviates the perceived job demand and foster work engagement according to JD-R model (Bakker & Demerouti, 2017), as well as the well-established finding of a positive relationship between mindfulness and general psychological wellbeing (Irving et al., 2009; Keng et al., 2011).

Recently, there has been growing interest in mindfulness and its application to management science (Zivnuska et al., 2016). Although mindfulness interventions may show clear evidence of benefit in a clinical setting, solid evidences in occupational settings is limited. Few studies have explored the benefits of mindfulness in the workplace.

Even though direct research on mindfulness and work engagement is limited, a few studies have applied mindfulness with other constructs such as strategic decision making and safety awareness in their task in occupational setting. Previous research has indicated that mindfulness may affect an organization's members on how they make strategic decisions from the literature review (Nadkarni & Barr, 2008). Also, a study in 89 employees from The Dow Chemical Company in Midland, Michigan has indicated that mindfulness can impact on the organization in many ways, including enhancing employee wellbeing and employee performance (Aikens et al., 2014).

In summary, there are only a few scholarly investigations of the effects of mindfulness on engagement, which the major justification for the current study. We can draw on the findings of positive psychology, which concentrates on the positive side and human potential. On the other hand, we may view the effects of mindfulness and work engagement in the burnout-antithesis view that mindfulness can alleviate the negative factors which burden employees and reduce engagement. Mindfulness intervention was introduced in workplaces (Hülsheger, Alberts, Feinholdt, & Lang, 2013; Klatt et al., 2009; Levy et al., 2012; Wolever et al., 2012) under the assumption that mindfulness practice will yield the full range of positive effects on employee performance and wellbeing (Glomb et al., 2011).

From previous discussion, there are linkages between mindfulness and engagement, but the mechanism needs exploration. The following part discusses the proposed mechanism of mindfulness at work. This aim to illustrate individual use of mindfulness in the workplace setting.

2.3.3 Mindfulness and JD-R model

In this part, the potential path to how mindfulness in organizations can increase employee engagement will be discussed. A review of related literature revealed the benefits of mindfulness in a clinical population (Chiesa & Serretti, 2010). Nevertheless, there is limited research on the potential paths of how mindfulness practices could increase employee engagement in an occupational setting.

2.3.4 Mindfulness and personal resources

As noted in the literature review, personal resources or psychological capital comprises of *hope, optimism, self-efficacy and resilience.* In brief, personal resources form a positive self-evaluation that is tied to resilience and the individual's sense of capability to control and impact their environment effectively (Hobfoll et al., 2003). Mindfulness could positively associate with employee engagement through an enhancement of personal resources in the form of an increase in *hope optimism, self-efficacy and resilience.* Mindful employees tend to be emotionally neutral in dealing with difficult circumstances (van Berkel et al., 2011).

Sears & Kraus (2009) have examined the benefits of mindfulness practices on a positive psychological phenomenon, namely *hope*. People with *hope* have a feeling of assurance and capacity to create plans to accomplish their objectives (Snyder et al., 1991). Despite the fact that mindfulness is not goal-orientated in itself, it can clear the mind of negativity and increase a person's potential to identify and pursue goals (Sears & Kraus, 2009). A study of college students indicated that mindfulness meditation in a classroom setting is related to *hope* (Sears & Kraus, 2009). Although that particular study was not in an occupational setting, the findings can be extrapolated. In an occupational setting, Malinowski & Lim's study (2015) also provided supporting evidence to suggest that mindfulness is positively related to *hope*.

Mindfulness practices may also enhance *optimism*. However, *optimism* or positive emotion does not come from unrealistic ignoring of negatives. Shapiro (2018) explained that we may not stop all the stressors in our lives just as we cannot control the waves in the sea. Still, mindfulness helps us to stay calm beneath the surface of the waves while learning to *see the truth of what is* and to see clearly with honesty and courage (Shapiro et al., 2018). The positive emotion could come from a lessening of negative thinking (Shapiro et al., 2006), which supports individuals to be more likely to notice positive circumstances in their lives and experience positive moods (Glomb et al., 2011). With mindfulness, it can be expected that individuals will have more positive emotions and *optimism*.

One of the paradoxes about mindfulness is a misunderstanding that mindfulness might lead individuals who practice it to surrender to circumstances without improving or changing them. Mindfulness practices lead to acceptance of "what is" instead of resisting what is happening. As a result, mindfulness practitioners tend to do the best they can in the current situation. In addition, individuals who practice mindfulness can adjust to the situation in a less angry or resistant way. In comparison, individuals who have personal resources with no mindfulness may cope with situations in the work but might be easily prone to negative thinking and anger from a resistance to "what is." With their positive mood, mindfulness practitioners can be expected to experience greater degrees of *optimism*. This is supported by a study of full-time adult workers, which showed that mindfulness practices have a positive association with *optimism* (Malinowski & Lim, 2015).

In addition, mindfulness is also related to *self-efficacy*. In a study conducted in San Francisco, the results indicated that an 8-week mindfulness intervention increased the *self-efficacy* of the participants (Chang et al., 2004). This is supported by a study of 166 college students, which found that mindfulness is positively related to *self-efficacy* (Caldwell et al., 2012). One of the explanations for the increase in *self-efficacy* is that mindfulness practices aim to reduce negative thinking patterns, which then supports the growth of *self-efficacy* (Glomb et al., 2011). Nevertheless, there is a paucity of explanations for how mindfulness is positively associated with hope and *self-efficacy*. As mindfulness practices encourage individuals to be less judging of circumstance, and therefore avoid unintentional negativity, those who practice mindfulness tend to have a positive psychological state which supports other psychological states such as *self-efficacy*. However, the explanation of the link between mindfulness and *self-efficacy* is limited (Caldwell et al., 2012; Chang et al., 2004). With mindfulness, individuals could withdraw themselves or disengage from negative cognitive or emotional reactivity. This then provides the conditions in which they have the opportunity to observe the progress of their practices and gradually build up their *self-efficacy*. Looking at another aspect, mindfulness practices provide opportunities for individuals to be aware of their level of development of their awareness of individual thoughts. This could provide another potential explanation of how individuals who practice mindfulness could experience an improvement in their *self-efficacy*.

A feature of how mindfulness enhances *resilience* is a capability to be nonreactive to one's thoughts and emotions and to help accept them, which could be understood as decoupling and decreased automaticity (Glomb et al., 2011) especially in situations of adversity. *Resilience* is one of the elements in the psychological capital. From the literature review and the interviews conducted with mindfulness meditators, it can be said that mindfulness practices increase *resilience* in mindfulness practitioners (Glomb, 2011). This connection is supported by Aikens's study (2014), which shows the potential for mindfulness meditation to enhance the meditators' personal resources, since resilience is an element related to psychological capital.

In summary, it is reasonable to draw the conclusion that mindfulness practices may support personal resources in terms of *optimism, hope, self-efficacy and resilience*. From this, it can be inferred that mindfulness practices could increase the

personal resources in the JD-R model. As personal resources are one of the antecedents that foster employee engagement, it is feasible to draw the conclusion that the practice of mindfulness can increase employee engagement.

2.3.5 Mindfulness and perceived resources

Reb et al., (2015) found that working adults in Singapore exercised higher levels of mindfulness if granted more *autonomy*, which is an organizational factor. However, the underlying mechanism connecting them needs explanation. This emphasizes the need for studies that focus on a mechanism of mindfulness in occupational settings in order to elucidate how the process works. Qualitative research can provide unique contributions to understanding the relationship between mindfulness and other constructs such as *autonomy* and employee engagement.

Mindfulness may increase employee engagement through an increase in resources in terms of *social support within teams*. Mindfulness training enhances social relations by providing opportunities for individuals to get in contact with their colleagues during (Lyubomirsky, 2008; Ouweneel et al., 2009), and sharing acts of kindness with other colleagues (van Berkel et al., 2011). Also, mindfulness can enhance the quality of interpersonal connection (Hutcherson et al., 2008b). Although mindfulness occurs on the individual level, there is evidence to illustrate that it affects interpersonal behavior as well as work group relationships (Good et al., 2016). Both verbal and nonverbal communication used by senders and receivers signal the mindfulness level of senders and receivers (Burgoon et al., 2000). With more mindfulness in the communication, verbal and nonverbal messages can be deployed with consciousness to use a more flexible and thoughtful state of mind (Burgoon et al., 2000). For example, semi-structured interviews with primary care physicians in the USA revealed that both dispositional mindfulness and mindfulness practice among health care practitioners were related to an improvement in communication quality, which manifested in open listening with an increase in awareness and reduction in judgment of others (Beckman et al., 2012).

Mindfulness practices develop the capability to understand their emotional process, which can enhance their understanding of the internal emotional processes of others (Teasdale et al., 2002). As noted by Dalai Lama (2002, p. 67), "Ultimately, how

we act and behave in relation to our fellow humans and the world depends on how we perceive ourselves." Therefore, practicing mindfulness can cultivate an understanding of internal processes of how individuals view external circumstance as well as supporting them to understand the internal processes of others.

As Mindfulness in Organizations (MIO) is a program executed at the organizational level, mindfulness practices are embedded not only in individuals but also in the entire organization. Therefore, an improvement in communication and empathy among employees could lead to *social support within teams* at the team level. With more mindfulness, communication made by senders and receivers has no improper skepticism (Burgoon et al., 2000). In sum, mindfulness can improve interpersonal connections, communication quality and empathy with colleagues. This can lead to a development in *social support within teams*. Altogether, this implies that mindfulness practices enhance social support.

Beyond social support within teams, it can be expected that the MIO program may enhance resources through a *psychological safety climate*. MIO should have a positive effect on both supervisors and employees. From MIO program, it can be expected that mindfulness levels among supervisors will be increased, as MIO includes a session in which managers and employees have the opportunity to incorporate values of mindfulness into the organization's values. This creates a chance for both managers and employees to increase their awareness of mindfulness values in the organization. As supervisors are at a level that could impact the level of the *psychological safety climate* (Dollard & Bakker, 2010), those supervisors which join MIO training are expected to have more awareness in their actions toward their subordinates.

Reb et al. (2014) pointed out that leaders with mindfulness were associated with more satisfactory subordinate attitudes and actions resulting from enhanced relationship quality. Since supervisors and senior managers also join mindfulness training, it is expected that mindfulness practices will be used not only by individuals, but also among team members, supervisors and senior managers. This includes ways they communicate with their subordinates or ways they provide feedback to their subordinates. This is supported by the perspective that mindfulness-based interventions enhance communication (Dane, 2011; Glomb et al., 2011). Supervisors and team members become more mindful in their conversations, which could create a

psychological safety climate in the organization. Then *psychological safety climate* can be improved and positively associate with the engagement level in the organization.

In comparison with MIO and other interventions, previous mindfulness intervention were conducted only at an employee level (Aikens et al., 2014; Levy et al., 2012; Wolever et al., 2012b). Introducing mindfulness practices at supervisor level has the potential to support a greater success from Mindfulness in Organizations (MIO) interventions, since the supervisors in the organization have some influence over employee attitudes and behavior as well as their wellbeing (Lowe et al., 1996). Supervisors who practice mindfulness could play a prominent role in supporting mindfulness levels in employees as they exercise their leadership style with greater attention to awareness of their subordinates. As leaders or supervisors are one group with influence over other organizational members through their positions (Reb et al., 2014), level of supportiveness in organizations may influence the degree of mindfulness at individual level (Sutcliffe et al., 2016). This might be one of the elements to support success of MIO.

In addition to organizational leaders who practice mindfulness in the workplace, continuity in mindfulness interventions might be required to support employees to maintain and support *psychological safety climate.* The feedback from one participant in a study which introduced mindfulness interventions in a hospital suggested that there should be mindfulness materials in a hospital library or there should be e-mails with poetry and inspirational quotes sent out during the year (Cohen-Katz, Wiley, Capuano, Baker, Deitrick, et al., 2005). This could signal the importance of continuity in mindfulness interventions. Altogether, this suggests that conditions of having leaders provide support and continuity in mindfulness practices could be a key element in the success of implementing mindfulness in organizations. In sum, it is proposed that mindfulness will enhance job resources of employees through an improvement in *autonomy, social support within teams* and a *psychological safety climate*.

2.3.6 Mindfulness and perceived demands

Third, mindfulness may reduce burnout from the alleviation of perceived job demands. This comes from the proposition that mindfulness practices help in *stress reduction*. As role stress and stressful events are components of perceived job demands,

a decrease in stress in perceived job demands can reduce burnout. It was reported that mindfulness helped employees to cope with psychological distress of their work (Grégoire & Lachance, 2015). From a study of 600 employees in Midland, Michigan, the results showed that mindfulness training had a positive association with a decrease in perceived stress in employees (Aikens et al., 2014). Therefore, mindfulness practices can alleviate stress, which eventually reduces perceived job demands and decreases burnout according to the JD-R model.

Meijman & Mulder (1998) developed and presented their Effort-Recovery (E-R) theory, which suggests that recovery has the main role of supporting individuals in their job-related psychological wellbeing and health. According to E-R theory, confronting job demands requires effort, which is related to temporary psycho-physiological reactions such as increases in heart rate, changes in mood, as well as other reactions such as fatigue (Brand-Labuschagne et al., 2012). These psycho-physiological reactions are reversible.

E-R theory implies that mindfulness might shorten the recovery process from the stress of job demands. As the psycho-physiological reaction will come after an individual has been exposed to job demands (Meijman & Mulder, 1998), it is proposed that awareness from mindfulness will bring back the psycho-physiological reactions in individuals when they are no longer confronted by demands. Then, the psycho-physiological systems previously affected by these demands will return to the pre-demand level, and recovery can occur (Meijman & Mulder 1998). As a result, fatigue and other effects of the stressful situation are reduced.

Beginners at mindfulness practice cannot be expected to deal with the stresses of job demands without a psycho-physiological reaction. However, it can be expected that mindfulness practices create the awareness in the individuals to notice their automatic reaction and start the recovery process as soon as they become aware of their thinking pattern. Then, this could lessen the risk of burnout. This aligns with the view that the state of work engagement varies during the day, and changes when individuals interact with a variety of different situations (Sonnentag et al., 2010).

Sonnentag (2010) proposed a model in which negative effects are positively associated with work engagement if followed by a positive effect. Employees tend to have less stress and able to recover from negative thinking about the job demands they

face. Therefore, individuals' perceived job demands are expected to be lessened from stress reduction and this could lead to a decrease in burnout. As the demands in the JD-R model are limited to both the team and organization level (Bakker & Demerouti, 2017), a clear path to mindfulness meditation and demands at the team and organization level is not presented here.

By applying the JD-R model in this study, the authors have considered three psychological conditions mentioned by Kahn (1990): meaningfulness, psychological safety, and psychological availability. Meaningfulness can be categorized as a resource at the job level, since job characteristics provide the meaningfulness for individuals. The psychological safety factor comes in the form of *social support within teams* from the resources at the team level. Finally, psychological availability, can be implanted into personal resources such as *self-efficacy*. From what has been discussed, it raises the point that the concept of Kahn is integrated inside the JD-R model.

In summary, mindfulness has the potential to increase employee engagement through the JD-R model as another important potential psychological capital or personal resource. The key elements of how mindfulness positively associates with employee engagement through the JD-R model is summarized in Table 2.1.
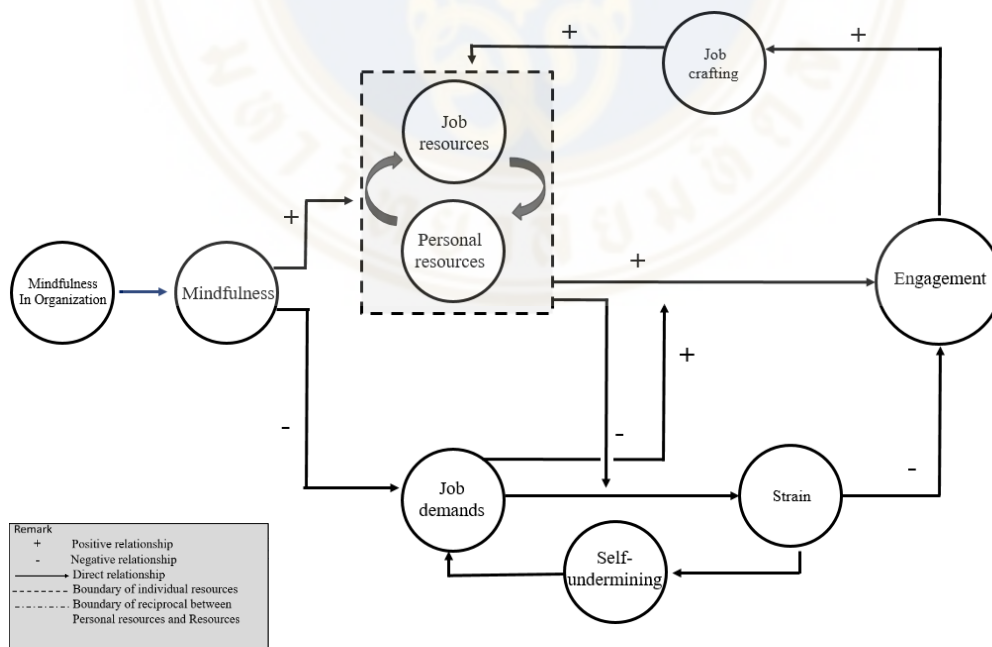
Figure 2.2 Proposed model for mindfulness in organization and job demands - resources model

Figure 2.2 presented the proposed conceptual model of how MIO could enhance engagement by adapting from the JD-R model (Bakker, 2017). From the proposed model, we proposed that MIO could associate with mindfulness in the individual and this could enhance personal resources (psychological capital including optimism, hope, self-efficacy, and resilience). Moreover, mindfulness in the individual could enhance resources in the work from prosocial behavior expected from mindfulness practitioners. Also, mindfulness in the individual could alleviate stress from work demands.

From three main paths presented including and enhancement in personal resources, resources, and alleviation in demands, we draw a proposition that mindfulness in the organization could enhance employee engagement. Job crafting is the active change that employees make in their job demands and job resources (Bakker & Demerouti, 2017). In contrast, self-undermining explained the reverse causality and reciprocal effects were also found from jobs demands (Bakker & Demerouti, 2017) as The demands of jobs do not only cause strain, but employees who experience job strain also generate further job demands over time (Zapf et al., 1996).

Table 2.1 Potential path and rationale of how mindfulness can influence engagement in the JD-R model

JD-R component	Factors	Potential path and rationale	Psychological conditions (Kahn, 1990)
Personal Resources	Hope (Sears & Kraus, 2009)	Mindfulness reduces emphasis of negatives and increases potential to recognize and pursue goals, which increases hope (Sears & Kraus, 2009).	
	Optimism (Malinowski & Lim, 2015)	Mindfulness decreases a focus on negative thinking and improve positive emotions, which support optimism (Malinowski & Lim, 2015).	
	Self-efficacy (Chang et al., 2004)	Individuals can advance self-efficacy from a development of mindfulness practices by removing themselves or disengaging from cognitive or emotional reactivity or rumination (Glomb et al., 2011). (To succeed means doing the best of one's ability.)	Psychological availability (Kahn, 1990)
	Resilience (Aiken, 2014)	Mindfulness improves the capability to be nonreactive to thoughts and emotions, and support their acceptance, which can be comprehended as decoupling and decreased automaticity (Glomb et al., 2011) particularly in cases of adversity.	

Table 2.1 Potential path and rationale of how mindfulness can influence engagement in the JD-R model (cont)

JD-R component	Factors	Potential path and rationale	Psychological conditions (Kahn, 1990)
Resources	Autonomy (Crawford, 2010)	*There is a positive relationship between autonomy and mindfulness (Reb, 2015).* Still, there is limited reasoning for how mindfulness could lead to autonomy.	Meaningfulness (Kahn, 1990)
	Social support (Schaufeli & Bakker, 2004)	Because mindfulness improves interpersonal relations, communication (Hutcherson et al., 2008b) and empathy (Shapiro, Schwartz, & Bonner, 1998), it is expected to enhance social support within the team.	Psychological safety (Kahn, 1990)
	Psychological safety climate (Dollard & Bakker, 2010)	Because mindfulness among supervisor supports satisfactory subordinate attitudes and improved relationship quality (Reb et al., 2014), it can be assumed that a psychological safety climate can be developed.	Psychological safety (Kahn, 1990)
Demands	Perceived stress (Aiken, 2014)	Mindfulness practices lessen stress (Aiken, 2014) and can alleviate perceived job demands.	

Mindfulness can positively associate with employee engagement by means of an enhancement of psychological capital as an improvement in hope, optimism, self-efficacy and resilience, and personal resources or psychological capital is one of the components in the JD-R model. From conservation of resources (CORs) theory, fulfillment of fundamental resources will carry more resources to the individual, while an inadequacy of resources will prompt further exhaustion of resources in the future (Hobfoll, 2001).

Based on COR theory, mindfulness may assist engagement in the JD-R model by enhancing the psychological capital of individuals. Mindfulness could be a crucial path for enhancing work engagement (S. Liu et al., 2020). Also, we infer that mindfulness could improve perceived resources from positive social connection (Glomb et al., 2011) and alleviate stress from perceived demands (Cohen-Katz, Wiley, Capuano, Baker, & Shapiro, 2005; M. Klatt et al., 2015).

In growing job demand situations, mindful individuals are likely to act thoughtfully rather than merely reacting (Hyland et al., 2015; Malinowski & Lim, 2015). Table 2.1 provides a summary of how mindfulness may raise employee engagement through components in the JD-R model. Furthermore, from the JD-R model (Bakker and Demerouti, 2017), one of the opportunity areas is at the level of resources and

demands. Saks (2006) explained that it has different predecessors for job engagement and organizational engagement. Research on resources and demands has typically investigated the individual level (Bakker and Demerouti, 2017).

However, effects may vary from one level to another. The findings from existing research are unequivocal in showing improved results from mindfulness practice at individual, team and organizational levels (Good et al., 2016; Kudesia, 2017). According to the proposed model, the level of perceived resources and perceived demands can be arranged into three levels including job level, team level, and organizational level. From what we have discussed, the job demands-resources (JD-R) model can provide an overview of how employees can be engaged via three main components: personal resources, job resources, and job demands.

Therefore, it is proposed that mindfulness positively associate with engagement in three ways, by increasing personal resources and organizational resources, and through alleviation of demands, since mindfulness is argued to enhance prosocial actions (Berry et al., 2018; Condon, 2017), social connection (Adair et al., 2018), and flourishing citizenship behavior (Glomb et al., 2011). MIO is an intervention the organization provides to employees for personal development. Social exchange theory (Cropanzano & Mitchell, 2005) implies that an employee gives benefits to the employer in return for received resources. As set out in Figure 2.3, the research hypothesis is that there is a positive association between mindfulness practice and employee engagement. It is hypothesized that:

Ha1: MIO can significantly have positive association with employee engagement in a hospital context.

Ha2: MIO can significantly have positive association with employee engagement in a factory context.
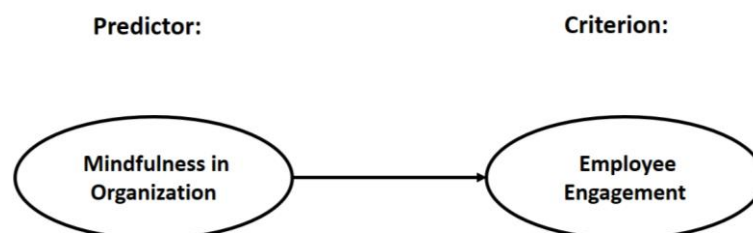
Figure 2.3 Proposed model for mindfulness and engagement

As yet there is no common understanding of how mindfulness impacts employees in an organization (Ng & Purser, 2016). The JD-R model gives an integrative picture to allow us to build on theoretical fragments. Previous research has studied mindfulness practices in small groups of employees (M. Klatt et al., 2015). Aikens et al., (2014) commented that more broad and more extensive usage of mindfulness could help benefit employees' wellbeing as well as their performance. Findings from existing research are unequivocal in showing the benefits of mindfulness practice at individual, team and organizational levels (Good et al., 2016; Kudesia, 2017).

However, there is no research on the effects of the application of mindfulness to the whole organization, which is what MIO specifies. Additionally, Bakker and Demerouti (2017) suggested that future research should investigate the effects of changes in resources and demands on its levels, while Leroy (2013) commented that future research could investigate to see how mindfulness interacts with existing job demands and job resources in shaping work engagement. A multidisciplinary viewpoint including mindfulness, and consideration of neuroscience and psychology is needed to investigate how mindfulness positively associate with employee engagement. In addition, we extend the existing model by piecing together theoretical parts. It is possible that mindfulness will prove to have only limited advantages. In this way, attempting to comprehend the mechanism of the effects mindfulness on work engagement will assess this. In summary, understanding in how MIO may be of benefit should be investigated. This is the topic of the following section.

Mindfulness could positively associate with employee engagement by means of an enhancement of psychological capital as a nourishment in hope, optimism, self-efficacy and resilience.

Each component in psychological capital will now be examined to see how mindfulness might improve hope, optimism, self-efficacy and resilience.

Sears and Kraus (2009) have examined the advantage of mindfulness practices on hope. Individuals with hope have a feeling of objective, guided assertiveness, and the ability to make plans to accomplish their goals (Snyder et al., 1991). In spite of the fact that mindfulness is goal-oriented in itself, mindfulness may banish mental negativity and improve a person's capability to recognize and pursue

goals (Sears & Kraus, 2009). Research of undergraduates showed that mindfulness meditation in a classroom setting is associated with hope (Sears and Kraus, 2009). Even though this research is not directly related to an occupational setting, the findings are suggestive. In the occupational setting, Malinowski and Lim's study (2015) introduced supportive evidence to propose that mindfulness is positively related to hope.

　　　Mindfulness practices could enhance optimism. With a less negative feeling, mindfulness practitioners can be expected to be more optimistic. Without mindfulness practice, a person may follow automatic patterns of negative thinking. However, such optimism is realistic and does not ignore difficulties. Shapiro (2018) stated that we cannot eliminate every stressor from our lives, just as we cannot handle the waves in the ocean. All things considered, mindfulness helps people to remain quiet underneath the surface of the waves while figuring out how to see the reality of what is, and to see obviously with genuineness and courage (Shapiro et al., 2018). This could enable a person to see positive conditions in their lives and experience positive temperaments and diminish automatic thinking (Glomb et al., 2011). So, mindfulness practices can expand positive feelings.

　　　Employees with mindfulness experience fewer adverse feelings (Shapiro et al., 2006). Mindful employees tend to be emotionally neutral in managing difficult circumstance (van Berkel et al., 2011). People who practice mindfulness can respond to circumstances in a less angry or resistant way. In comparison, individuals who do not practice mindfulness may adapt to the circumstances of the work yet be effectively inclined to negative thinking and outrage from a resistance to "what is." With more positive feelings, the psychological capital of optimism is expected to develop. This is reinforced by research on full-time adult workers, which showed that mindfulness practices have a positive relationship with optimism (Malinowski & Lim, 2015).

　　　Mindfulness is also related to self-efficacy. In a study in San Francisco, the outcomes demonstrated that an 8-week mindfulness intervention improved the self-efficacy of participants (Chang et al., 2004). This is aligned with research from 166 students, which also found that mindfulness is positively associated to self-efficacy (Caldwell et al., 2012). One of the explanations for an increase in self-efficacy is that mindfulness practices aims to decrease anxiety (Chiesa & Serretti, 2010). A reduction in negative thinking patterns can lead to the development of self-efficacy (Glomb et al.,

2011). There is a shortage of explanations of how mindfulness is associated with self-efficacy (Caldwell et al., 2012; Chang et al., 2004).

Mindfulness enables a person to avoid contrary perception or emotional reactivity. Additionally, practicing mindfulness itself may directly improve self-efficacy. This is because improvement in mindfulness enables the person to be aware of their thoughts, resulting in power over them. Looking at it another way, mindfulness practices offer possibilities for people to monitor their degree of progress in their attention to individual thoughts. This gives another possible explanation of how the practice of mindfulness may improve self-efficacy.

As indicated by the broaden-and-build theory of positive emotion (Fredrickson et al., 2004), it is feasible to anticipate how the positive emotions emerging from mindfulness affect a person's thinking and behavior. This is supported by a meta-analysis of 32 samples in 29 studies, which showed a positive connection between mindfulness and positive mood states (Giluk, 2009). Despite the fact that negative circumstances can drain people's emotions, a positive mindset can "restore and replenish" these resources empowering a person to persevere (Giluk, 2009, p.55). Mindful individuals are likely to notice positive circumstances in their lives and experience more positive feelings (Glomb et al., 2011). In this way, an element of how mindfulness enhances resilience is the ability to be nonreactive and accepting to thoughts and emotions, leading to more deliberate, less automatic reactions, particularly in circumstances of difficulty (Glomb et al., 2011). One factor to counterbalance the cutoff condition of an intense negative stimulus is the ability to nonjudgmentally acknowledge it (Hafenbrack, 2017).

Davis (2009) raised the point that "The capacity to harness positive emotion in daily life may be a key ingredient to resilience, helping individuals to persevere in the face of challenge, speeding recovery from transient life difficulties, and sustaining the quality of life in the face of more chronic stressors" (p. 62). Interviewed mindfulness meditators tend to say that mindfulness practices increment their resilience (Glomb, 2011). This association is supported by Aikens's (2014) study, which illustrated that mindfulness is positively associated with resilience. In summary, it is reasonable to presume that mindfulness practices support people's personal resources in terms of hope, optimism, self-efficacy and resilience. This implies that these components of

mindfulness practice increase personal resources in the JD-R model, which in turn positively associates engagement. As personal resources are one of the precursors that encourage employee engagement, it is feasible to assume that the practice of mindfulness can increase employee engagement.

Similarly, there are indications that mindfulness can positively associate with employee engagement by improving people's perception of resources and demands at each level of individual, team, and organization. The JD-R model (Bakker and Demerouti, 2017) specifies this as one of the opportunities. As previously noted, there is a dearth of organization-level research on this issue, which the current study addresses. We additionally incorporate the team level of engagement. That is, the effect of mindfulness on colleague engagement can be examined. Table 2.2 showed past literature related to mindfulness and occupational setting. Table 2.2 showed past literature has focused on an association between mindfulness and occupational-related constructs such as stress, burnout, emotional exhaustion, and work engagement. Nevertheless, there is a gap in the association between mindfulness and employee engagement.

Table 2.2 Summary of mindfulness and occupational setting studies

No.	Author	Article	Quantitative research	Qualitative research	Related to Occupational setting	Work engagement	Employee engagement	Number of respondents	Key result
1	Aiken 2014	Mindfulness Goes to Work Impact of an On-Line Workplace Intervention	✓			✓		89	Positively related to work engagement, vigor, resiliency and negatively relate to stress
2	Allen 2012	Trait mindfulness and work–family balance among working parents: The mediating effects of vitality and sleep quality	✓		✓			131	Positively related to work family balance
3	Berkel 2011	Mindful "Vitality in Practice": an intervention to improve the work engagement and energy balance among workers; the development and design of the randomised controlled trial	✓			✓		257	Significant in vigorous physical activity in intervention group
4	Berkel 2015	Effectiveness of a worksite mindfulness-related multi-component health promotion intervention on work engagement and mental health: results of a randomised controlled trial	✓					129	no significant relationship
5	Cohen-Katz 2004	The Effects of Mindfulness-based Stress Reduction on Nurse Stress and Burnout Phase II	✓		✓			27	Significant lower in the burnout in the intervention group
6	Cohen-Katz 2005	The Effects of Mindfulness-based Stress Reduction on Nurse Stress and Burnout Phase III		✓				13	Greater relaxation, self-care as well as improvement in work and family relationships
7	Dane 2014	Examining workplace mindfulness and its relations to job performance and turnover intention	✓		✓	✓		102	Increase job performance and reduced turnover intention Not significant in work engagement
8	Glomb 2011	Mindfulness at Work		✓	✓			20	Employee performance and well-being
9	Hulsheger	Benefits of Mindfulness at Work: The Role of Mindfulness in Emotion Regulation, Emotional Exhaustion, and Job Satisfaction	✓		✓			283	Reduced emotion exhaustion, increase job satisfaction
10	Klatt 2009	Effects of Low-Dose Mindfulness-Based Stress Reduction (MBSR-ld) on Working Adults	✓		✓			24	Reduced perceived stress
11	Klatt 2015	Mindfulness in Motion (MIM): An Onsite Mindfulness Based Intervention (MBI) for Chronically High Stress Work Environments to Increase Resiliency and Work Engagement	✓		✓	✓		34	Resilience
12	Leroy 2012	Mindfulness, authentic functioning, and work engagement: A growth modeling approach	✓		✓	✓		90	Positively relate with work engagement
13	Levy 2012	The Effects of Mindfulness Meditation Training on Multitasking in a High-Stress Information Environment	✓		✓			39	Attention and negative emotion after task performance
14	Malinowski & Lim 2015	Mindfulness at work: Positive affect, hope, and optimism mediate the relationship between dispositional mindfulness, work engagement and well-being	✓			✓		291	Increase work engagement, hope, optimism
15	Roche 2014	The Role of Mindfulness and Psychological Capital on the Well-Being of Leaders	✓		✓			697	Negatively related to burnout
16	Wolever 2012	Effective and Viable Mind-Body Stress Reduction in the Workplace: A Randomized Controlled Tria	✓					299	Reduced perceived stress

CHAPTER III
RESEARCH METHODOLOGY

The majority of existing studies regarding mindfulness and occupational employee engagement use a quantitative approach (Dane, 2011; M. D. Klatt et al., 2009; Leroy et al., 2013).

In contrast, this study includes research based upon subjective and managerial views. More essentially, the underlying factors of how Mindfulness in Organizations (MIO) influence employee engagement are still underexplored.

The previous chapter led to two hypotheses: 1) Does Mindfulness in Organizations (MIO) influence employee engagement in healthcare workers and factory workers in Thailand? And 2) How do Mindfulness in Organizations (MIO) influence employee engagement in healthcare workers and factory workers in Thailand according to the JD-R model?

Based on established theory, this research uses a mixed quantitative and qualitative approach (Tashakkori & Creswell, 2007). Restriction to quantitative research fails to integrate the lived experiences of participants, so adding qualitative data extends and enriches quantitative results.

Cohen-Katz, Wiley, Capuano, Baker, & Shapiro, (2005) have also indicated that the effects of mindfulness practice are hard to understand through quantitative measurement alone. Utilizing a mixed method with the qualitative method as the primary approach gives an understanding into the mechanism of how MIO influences work engagement, colleague engagement and employee engagement. It is difficult to examine inner psychological mechanisms through surveys alone (Sinkovics et al., 2005). Another significant motivation behind prioritizing qualitative analysis of in-depth interviews is that there are no current investigations of the effect of MIO on hospitals and factories in Thailand.

It is essential to note the working conditions of healthcare and factory workers. For instance, nurses have high job demands from their job characteristics,

which contain stress from patients and relatives in dealing with life-and-death situations. A study of 65 nurses in the UK illustrates that work overload and the deaths of patients are the key sources of stress (Hipwell et al., 1989). In addition, inadequate time and resources to complete assigned responsibilities is another source of stress for nurses (Humphrey, 1992). Patient overload and mortality are major sources of stress for healthcare professionals (Fernández et al., 2022). In addition to traditional stressors such as long working hours, high workloads, and time pressure, healthcare workers also face physical demands associated with potential viral contamination (Kisely et al., 2020). In comparison to nurses, factory workers may are affected by the boredom of routine and repetitive work in the assembly lines (Melamed et al., 1995).

Also, since people working in factories handle heavy machinery, it is very important to create a safe workplace with safety equipment. This is particularly important for security issues in high-risk sectors (Weick, Sutcliffe, and Obstfeld 1999). Workers in the workplace are certainly very vulnerable to health and safety risks, in particular the safety risks deriving from the lack of safety of the machine (Wijesooriya & Tennakoon, 2021). Safety devices may not fully protect the machine from unsupervised operator actions.

3.1 Context of the study

3.1.1 Mindfulness in Organizations (MIO)

Mindfulness in Organization (MIO) was introduced to Thailand in 2014 by Dr. Yongyud Wongpiromsanti, Chief Advisor, Department of Mental Health, Ministry of Public Health in Thailand. MIO is a program intended to introduce mindfulness practices into an organization. It urges the organization to incorporate mindfulness values into the organization's values. Mindfulness in Organizations (MIO) is designed to introduce mindfulness practices to employees. The program is also designed to encourage and cultivate mindfulness communication in teams. Under the MIO program, participating organizations nominate representatives to receive MIO training (Wongpiromsanti, 2014). This training teaches mindfulness practices, body scans, how to apply mindfulness communication into dialog, and creative discussions in a series of

workshops. This is followed by a train the trainer session with the objective of training attendees to be trainers.

During the MIO program, a session is also set up for senior managers and employees to develop and design ways of adding mindfulness values into organizational values. This aims to encourage top management to have awareness of the implications of mindfulness by blending organizational values with the values of mindfulness practices. Later, these trainers will train and share mindfulness practices with their colleagues. As organizational culture is a group of values and beliefs shared by individuals in the organization (Brown & Starkey, 1994), having mindfulness practices shared by trainers should help to develop mindfulness practices as a part of internal culture.

In implementing MIO program in an organization. MIO program was introduced to the management level to recognize the benefit of mindfulness and seek cooperation from the executive level in each of the departments in the organization. A workshop was conducted with the delegated executive and representatives from an organization. In two days workshop, executives will participate in MIO program led by Dr. Yongyud Wongpiromsanti. This provided an opportunity for executives and representatives from an organization to have an experience in mindfulness practices as well as recognize the importance of implementing MIO in their organization. Also, this was an opportunity to train the trainers in the organization. From the train the trainer workshop, in-house mindfulness training will be conducted within the organization to conduct 100 percent participation from organization members.

Moreover, organizational culture functions as an organization's management system, which guides how individuals behave (Denison, 1990). This is not the same as Mindfulness-Based Therapy and Counseling (MBTC), which is another mindfulness intervention utilized as a type of treatment in psychiatry (Wongpiromsanti, 2014). The MIO program is intended for everyone in the organization. Instructional sessions incorporate mindfulness meditation, body scans, and the labeling of thoughts that arise during mindfulness meditation. The outcome from the mindfulness meditation may influence not just the trainee, but is expected to spread in the team and throughout the organization.

3.1.2 Using mindfulness in organizations in Thailand

Despite the fact that mindfulness derives from Buddhism, empirical studies of the subject have gained attention in Western cultures (Chalofsky, 2010; Malinowski & Lim, 2015; van Berkel et al., 2011), such as the Netherlands, UK, and USA. Studies related to mindfulness and work engagement are mainly conducted in Western countries (Aikens et al., 2014; Leroy et al., 2013; van Berkel et al., 2011). The research contribution in Asian countries is surprisingly limited (Charoensukmongkol, 2014). As Thailand is a country with Buddhism rooted in its culture, discovering the implications of mindfulness practices in the occupational setting is motivating. Therefore, a study of mindfulness practices and employee engagement in Thailand could generate interesting outcomes that contribute to previous studies which have primarily been conducted in Western settings. Thailand is one of the countries which has familiarity with the concept of Buddhism because Buddhism is followed by 93.5.6% of the population (*National Statistical Office of Thailand, 2018*).

Despite the number of Thais who affirm themselves as Buddhist, a survey showed that only five percent of Thai Buddhists practice mindfulness meditation regularly (National Statistical Office of Thailand, 2011). Although the number of regular mindfulness practitioners is quite low, it is possible that other people can comprehend the fundamentals of mindfulness. Exploring the potential benefit of mindfulness in the organizational setting in Thailand creates both challenges and benefits at the same time. Previous studies in Thailand have shown the benefits of mindfulness meditation practices (Christopher et al., 2009). For instance, mindfulness meditation is associated with a decrease in stress (Udomsinka, 1998), an improvement in academic achievement (Boonpitak, 2003), enhanced treatment of various clinical issues including anxiety (Charutsil, 2002), depression (Chamlong Disayavanish et al., 2007) and substance dependence (Disayavanish & Patanakamjorn, 1999). Organizations should explore the potential of using mindfulness to increase the level of engagement among their employees.

Difficulties can be expected in encouraging workers to undertake the relevant training and practice. Instead, like other people, workers spend ever-increasing time on electronic gadgets like computers, tablets and cell phones (Berardi & Empson, 2009). Thus, workers may see the requirement for mindfulness training to be an

imposition and an increase in job demands, leading to higher perceived stress, and resistance (Meijman & Mulder, 1998). Gallup 2013 reported that only 13% of employees were engaged whereas the rest were disengaged (Mann & Harter, 2016), and yet mindfulness training may be optional although it could play an important role in enhancing engagement. In UK, the risk of mental health in employees is increasing. From 2009 to 2013, sick days from stress, depression, and anxiety has increased by 24%. During the same time period, the number of sick days for serious mental illness has doubled (Davies, 2014). According to previous statistics, there should be an effort to develop new interventions to assist employees to deal with work stress. Preventive action is even more important. From previous discussion it is clear that mindfulness could be a key element to positively associate with engagement in the organization.

The risk of mental health in employees is not limited to the UK. Occupational pressures are major sources of depression, anxiety and substance abuse in the USA as well. This represents a serious risk to employees' health and productivity. Also, this problem leads to expensive medical costs associated with chronic stress, which could lead to adverse health habits such as alcoholism, smoking and obesity (Siegrist & Rödel, 2006; Umberson et al., 2008). This consideration alone shows the benefits of mindfulness training.

In Thailand, data has revealed mental illness of 1.5 million persons. From 2015 to 2017, there were almost 4000 suicides per year. This ranks as number three in the world while Japan is in the number one (Depression in Thais, suicide rate ranked 3rd in the world - Manager Online, 2016). A study of 2,008 workers in small and medium enterprises (SME) in Thailand indicated that more than half of the participants reported high job stress (Kaewboonchoo et al., 2011). Besides, a study in 173 factory workers in Thailand reported that 33.5% reported poor mental health with anxiety and insomnia being the most dominant issues (Janyam, 2011). By mentioning mental health, we mean positive mental health, not just the absence of disorder. The World Health Organization has defined mental health as "a state of wellbeing in which every individual realizes his or her own potential, can cope with normal stresses of life, can work productively and effectively, and is able to make a contribution to her or his community (WHO | Mental Health, n.d.). This definition implies attention in an occupational setting to wellbeing as well as relieving sources of mental illness.

3.3 Quantitative part

In the quantitative part of the study, survey forms were distributed by the researcher at a hospital and a factory. Inclusion for the study was that healthcare workers had to pass MIO program implemented in the public hospital and the factory. All participants joined MIO program in their organization. Each participant had past mindfulness training conducted by MIO coordinator in their organization.

In the sampling method, probability sampling was implemented for the quantitative part. Surveys were distributed to everyone in the organization which has 291 in total for the hospital and 260 in total for the factory. All participants in each organization pass MIO program.

In the first part of the questionnaire, respondents were asked about their profile, including gender, age, education, and years of experience in the organization. In the later part of the questionnaire, questions are developed to align with the proposed framework. Questions relating to individual mindfulness were adopted from the Five Facet Mindfulness Questionnaire (FFMQ) (Baer et al., 2006a). An example item is: "With mindfulness in the organization (MIO), I have trouble thinking of the right words to express how I feel about things." Work engagement questions are adopted from the scale of May, Gilson, and Harter (2004). An example item is: "With mindfulness in the organization (MIO), I exert a lot of energy performing my job." Colleague engagement questions were from Organization Citizenship Behavior – individuals (OCBI) (Williams & Anderson, 1991). The question item is: "With mindfulness in the organization (MIO), Willingly give your time to help others who have work-related problems" Organization engagement is adopted questions from Saks (2006). The question item is: "With mindfulness in the organization (MIO), being a member of this organization is very captivating." Respondents were asked to give their opinion on all measures using a five-point Likert scale ranging from (1) strongly disagree to (5) strongly agree. The questionnaire is presented in Appendix A. All participant responses were anonymous to maintain their confidentiality.

3.4 Qualitative part

The qualitative part is designed to distinguish "what is happening; to seek new insights; to ask questions and to assess phenomena in a new light." (Robson, 2002, p 59). Such qualitative research facilitates exploration of the mechanism underlying the quantitative findings (P. N. Ghauri & Grønhaug, 2005; Yin, 2017). This approach values respondents' perspectives on their experiences. (Glomb et al., 2011).

Examination of the words of respondents allows the uncovering of underlying rationality of their actions in a way that quantitative methods cannot. (Miles & Huberman, 1994; Siggelkow, 2007).

For the sampling method in the qualitative part, non-probability sampling is implemented. Convenience sampling is used for recruiting interviewees. The co-coordinator from each organization will set up the interview schedules with each interviewee while assuring that the interviews will not interrupt daily work which may negatively affect the patient in the public hospital case and the production line or essential work in the factory case. With convenience sampling, the researcher needs to be aware of sampling bias. Interviewees are voluntary participants. In each interview, the researcher will emphasize to the interviewees that there is no right or wrong answer and they need to answer decently with their genuine experiences, thoughts, and feeling. In addition, the research will check the validity of the interviewees' answers by cross-inspection among interviewees at the same managerial level as well as other levels.

Analyzing multiple cases allows replication, where each case is considered as an independent research study, which may affirm, reject or broaden theoretical background through evolving insights. The multiple case study method assists researchers to cultivate an in-depth understanding of how different cases provide their own distinctive insights into the issue or phenomenon (J. W. Creswell et al., 2007). The replication rationale delivers more accurate and adaptable results compared to single case studies. Notwithstanding their usefulness, case studies have also frequently been criticized. They are more time-consuming than survey methods. Therefore, time and monetary constraints limit the number of chosen cases. As a result, expanding the number of cases may sometimes even lessen the quality of the research rather than enhance it. However, the multiple cases method does assist the researcher to gain an in-depth comprehension of each person's own remarkable piece of knowledge of the issue

or phenomenon (Creswell et al., 2007). Therefore, the multiple cases method is the most fitting strategy for addressing the exploration questions. Despite the fact that qualitative research may have some limitations in the generality of the findings, the results of this research are expected to provide theory-related analytic generalizations but not statistical generalizations. So, this is a valid methodology (Cassell & Symon, 2004; Kohlbacher, 2006).

In-depth interviews were conducted with respondents from one hospital and one factory. Interviewees were selected based on a convenience sampling basis from several departments and work levels. It was ensured that an interview session would not affect their work responsibilities: for the healthcare workers, caring for patients; for the factory workers the progress of production-line teamwork.

In-depth interviews used a semi-structured interview developed with regard to the fundamental framework of the JD-R model. They covered personal resources, perceived demands, perceived resources, work engagement, colleague engagement, and organizational engagement. The list of questions is in Table 3.1. It must be kept in mind that the interview process from case to case may change theoretical understanding (Hartley, 1994; Kohlbacher, 2006). The data collection in the qualitative part using semi-structure questions developed from the JD-R model is the fundamental framework in exploring the mechanism of MIO in employee engagement. Nevertheless, this qualitative study and data collection are not designed to confirm the anticipated model from the JD-R model. The researcher is aware of the potential bias in data collection and data interpretation. Applying mixed method sequential design helps the researcher integrate quantitative and qualitative methods in the study (Ivankova et al., 2006)

Conversations from in-depth interviews were recorded and transcribed verbatim. The data were analyzed by the qualitative pattern, or thematic technique (Kohlbacher, 2006) using Computer Assisted Qualitative Data Analysis (CAQDAS). CAQDAS facilitates transparency in the dialogue between the researcher and word-based data. Interviews were conducted in Thai and recorded in the audio file. Later, the interviews were transcribed into a text file. Then, the transcribed interviews were translated from Thai to English and reviewed by the authors. Furthermore, CAQDAS enables the analysis of large volumes of data, therefore overcoming limitations and constraints associated with qualitative research (Miles & Huberman, 1994). Many

CAQDAS software tools are available for qualitative researchers, such as ATLAS.ti, DEDOOSE, MAXQDA, NVivo, and QUIRKOS. Nvivo was designated for this study because it provides technical advantages compared to conventional means of manuscript analysis and eventually helps in the formalization of processes, which support more reliable research findings. Moreover, it is user-friendly for novice researchers in comparison with other software packages.

Transcribed information was coded with Computer Assisted Qualitative Data Analysis (CAQDAS); Nvivo, qualitative software to assess the response and identify the emerging theme in the analysis. CAQDAS assists transparency in the dialogue between the researcher and text-based information, thus increasing conformability through external checks. Furthermore, CAQDAS simplifies the organization and analysis of large volumes of data, therefore conquering limits and shortcomings related with qualitative research (Miles & Huberman, 1994). In addition, to escalate trustworthiness, this study implement the data analysis process involving, organizing, coding, searching and modeling (Ghauri et al., 2008). Transcriptions were read through and coded into Nvivo, then analyzed using the pattern matching method (Miles & Huberman, 1994; Yin, 2017). When repeated coding appeared from case to case, it was reviewed to see developing themes. Steered by the proposed theoretical framework, the coded and analyzed each case individually, then compare them.

A Coding Procedure is generated to process a set of field notes, transcribe or synthesize them, and categorize them while keeping the relationships among the parts intact. Coding encompasses how the researcher differentiates and pools the retrieved information, and reflections they lead to. Engaging the standard practice of qualitative inquiry, the researcher coded the data from pairs of cases, looking for common themes and refining revealed themes on the basis of further fieldwork and continuing discussion (Miles & Huberman, 1994). Codes were labels or marks for noting pieces of meaning of illustrative or inferential data gathered during a review. A code in a qualitative inquiry was most frequently a word or short expression, phases that represented a notable point, essence capturing, and/or suggestive attribute to a portion of language-based data. The information in this research were interview records, transcribed and field notes. They

could appear as a direct classification name, or a more intricate one (Miles & Huberman, 1994; Saldaña, 2021).

As indicated by Ghauri and Grønhaug (2005), making a code book is an essential step in the coding system. Therefore, this study developed the codebook by utilizing pattern matching to analyze and relate data to the theoretical framework. The nodes were derived from existing literature, and guided the list of research questions (Miles & Huberman, 1994; Saldaña, 2021). Subsequent to coding, the researcher assembled the codes and nodes prior to continuing on to the pattern coding procedure, which is a method of grouping those summaries into a smaller number of sets, themes, or concepts.

In summary, this research implemented a mixed research method with quantitative survey and in-depth interviews to answer two main research questions. We aim to have statistical evidence from quantitative research to examine whether MIO has an association with employee engagement. Moreover, the fruitful insight from the qualitative component is designed to yield a comprehensive view on the mechanism of MIO influencing engagement at different levels including work engagement, colleague engagement and organizational engagement.

Table 3.1 In-depth interview guide developed from the JD-R model framework (Arnold B. Bakker & Evangelia Demerouti, 2008).

No.	Content
1	Background of the organization
	· Background information of the organization
	· Number of employees
	· Employment period
2	Background about Mindfulness in Organizations (MIO) Detail of the intervention
	· Activities
	· Frequency
	· Duration
3	How does Mindfulness in Organizations (MIO) influence work engagement, colleague engagement and organization engagement?
4	Effect of Mindfulness in Organizations (MIO) on employee engagement
	· Effect of MIO on work engagement, please provide an example
	· Effect of MIO on colleague engagement, please provide an example
	· Effect of MIO on organization engagement, please provide an example

Table 3.1 In-depth interview guide developed from the JD-R model framework (Arnold B. Bakker & Evangelia Demerouti, 2008) (cont.)

No.	Content
5	How does Mindfulness in Organizations (MIO) influence personal resources?
	· How does Mindfulness in Organizations (MIO) influence hope?
	· How does Mindfulness in Organizations (MIO) influence optimism?
	· How does Mindfulness in Organizations (MIO) influence resilience?
	· How does Mindfulness in Organizations (MIO) influence self-efficacy?
6	How does Mindfulness in Organizations (MIO) influence resources?
	· How does Mindfulness in Organizations (MIO) influence job resources?
	· How does Mindfulness in Organizations (MIO) influence team resources?
	· How does Mindfulness in Organizations (MIO) influence organizational resources?
	· How does Mindfulness in Organizations (MIO) influence job resources through personal resources?
	· How does Mindfulness in Organizations (MIO) influence team resources through personal resources?
	· How does Mindfulness in Organizations (MIO) influence organizational resources through personal resources?
7	How does Mindfulness in Organizations (MIO) influence demands?
	· How does Mindfulness in Organizations (MIO) influence job demands?
	· How does Mindfulness in Organizations (MIO) influence team demands?
	· How does Mindfulness in Organizations (MIO) influence organizational demands?
	· How does Mindfulness in Organizations (MIO) influence job demands through personal resources?
	· How does Mindfulness in Organizations (MIO) influence team demands through personal resources?
	· How does Mindfulness in Organizations (MIO) influence organizational demands through personal resources?
8	What are the success factors of Mindfulness in Organizations (MIO) on work engagement, colleague engagement and organization engagement?
9	What are the problems or issue from Mindfulness in Organizations (MIO)? How do you solve them?

3.5 Data collection and analysis

The primary data for a case study collected from numbers of sources including interviews and observations (Creswell et al., 2007). Also, in this mixed method approach, this research started with collecting survey from the participants in

the hospital and the factory. Figure 3.1 shows the flow chart of mixed method conducted in this research. There was a pilot test of the survey with 15 respondents in both the hospital and the factory during September, 2019, then an in-depth pilot interview with two participants from each organization. From the pilot tests, the survey and the semi-structured interview questions were adjusted in terms of the translation to be less scholastic and easier to understand. Then, the researcher collected the data from the survey from each organization. Later, data from the survey were imported to SPSS to run statistical tests to examine whether mindfulness has an influence on employee engagement in the hospital context and the factory context. In-depth interviews were conducted after this, the recordings transcribed and analyzed using Nvivo (Kohlbacher, 2006).
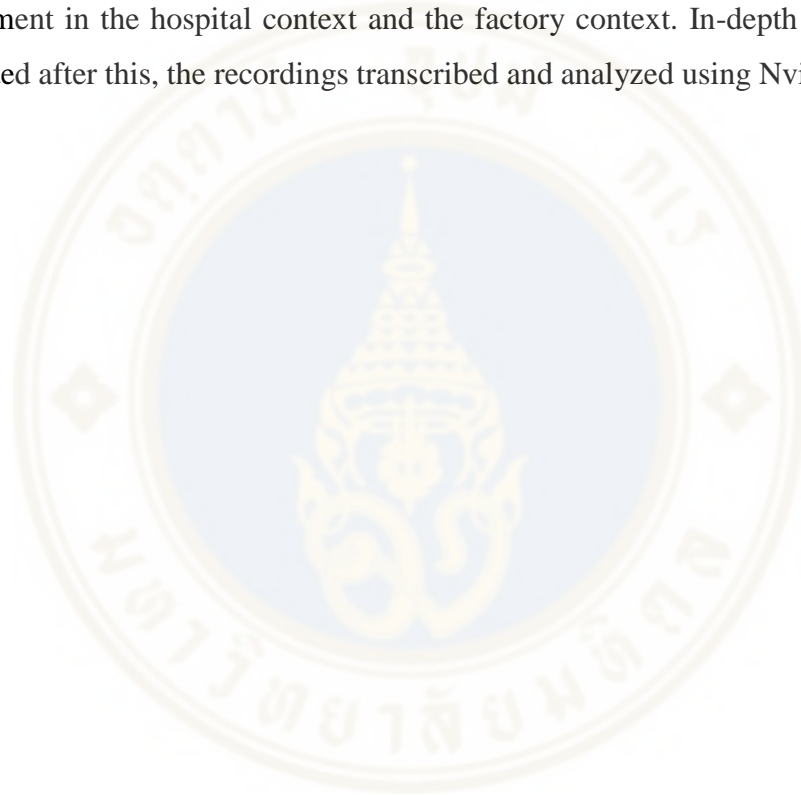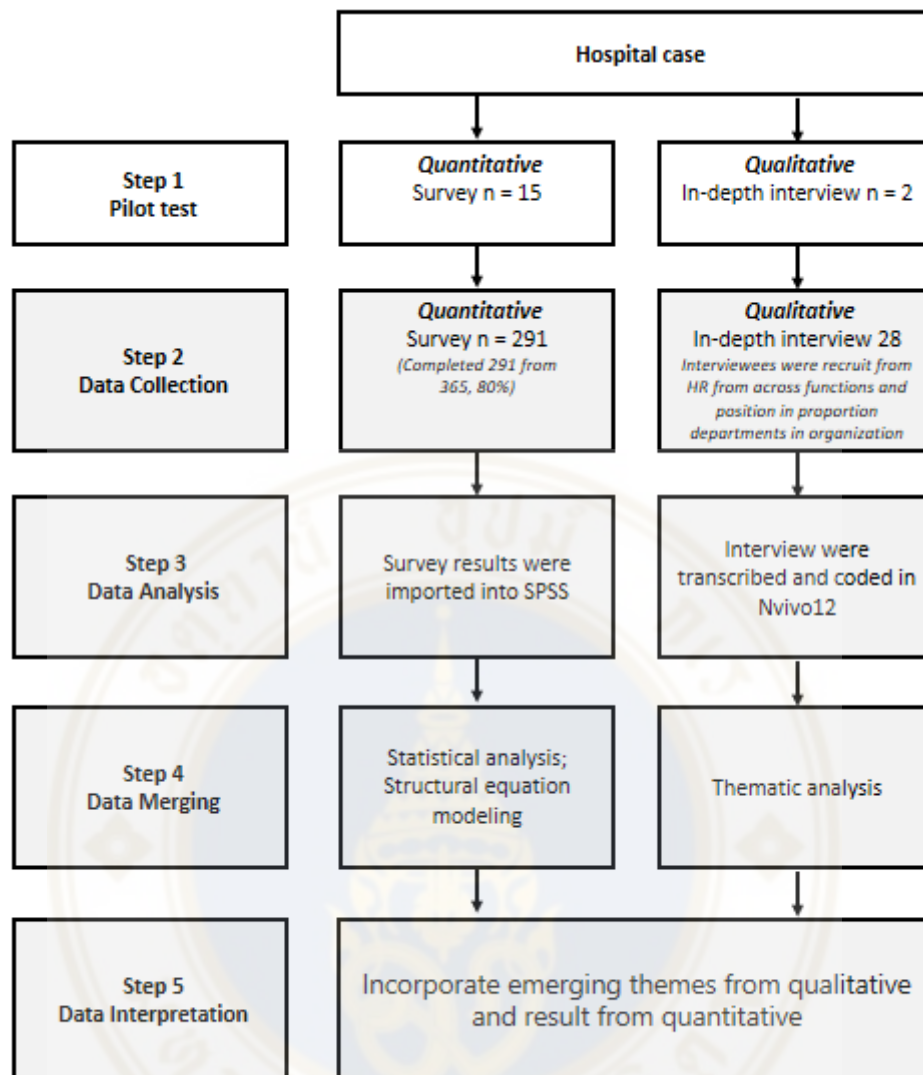
Figure 3.1 Mixed method research flow chart

Surveys were administered at the hospital in October 2019 and November at the factory, while the in-depth interviews were conducted during October 2019 to November 2019 at the hospital, December 2019 to February 2020 at the factory.

In total, 365 sets of questionnaires were sent to the healthcare workers in October 2019. 291 sets of the questionnaires were returned to the researcher, this being 80% response rate. 260 sets of questionnaires were sent to the factory workers in November 2019. 178 sets of the questionnaires were returned to the researcher, being 68% response rate. SPSS was used to generate means, correlations, and structural equation modeling. In total, two hypotheses were tested to examine whether MIO has

an association with employee engagement in the hospital context and the factory context.

Then, the face-to-face in-depth interviews were conducted. The author carried out the in-depth 25-60 minutes interviews with 28 healthcare workers in the hospital and 27 employees in the factory. Interview appointments were arranged by the coordinator from each organization. The schedule was arranged to ensure that the interview session would not interfere with the respondent's work obligations. List of interviewees were organized to cover employees from several functions including supervisory levels. In each in-depth interview, the interviewees signed a consent form which ensured their confidentiality.

The interviews were semi-structured, with questions derived from the proposed framework including elements of mindfulness in organization, personal resources, resources and demands from job, team and organizational levels as well as work engagement, colleague engagement, and organizational engagement. In addition, the interviewer could use more questions to elaborate the answers received. Ethical approval for this study was granted by the Institutional Review Board, Institute for Population and Social Research (IPSR-IRB), Mahidol University in July 2019, COA. No. 2019/06-203. To ensure validity, every interview was recorded with permission from the interviewee. Interviews were conducted in Thai and recorded in the audio file. Later, the interviews were transcribed into a text file. Then, the transcribed interviews were translated from Thai to English and reviewed by the authors.

As indicated by Miles and Huberman (1994, p. 69) for qualitative analysis, pattern coding has four key functions: 1) it reduces a large amount of data into a smaller number of analytical units; 2) it brings the researcher into the analysis during the data collection phase so that later fieldwork can be more focused; 3) it helps the researcher to elaborate a cognitive map, an evolving, more integrated schema for understanding local incidents and interactions; and 4) for multi-case studies, it lays the groundwork for cross-case analysis by surfacing common themes and directional processes. Table 3.2 and 3.3 are the codebooks developed from the psychological capital, job demands - resources model (Bakker & Demerouti, 2017) and engagement. Table 3.2 and Table 3.3 show the code book used in the data collection during the data collection process and

data importing to Nvivo. Emerging themes were presented in the qualitative finding part.

Table 3.2 Codebook – Mindfulness and Job demands - resources model (Mindfulness and Personal resources)

Code No.	Code Label	Sub Code No.	Sub Code Label	Reference
MI	Mindfulness	Act aware	Has awareness of the action they are doing as well as action they are going to take	(Brown & Ryan, 2003).
		Observing	How they see, feel, and experience the internal and external world around them	
		Describing	The way they label their experience and translate it into words to others	
		Non-reacting	Detach from negative thinking and emotion, so they can accept its existence and select not to react to it	
		Non-judging	Ability to maintain non-judgmental mind regarding their inner experience	
PR	Personal Resources	Hope	Persevering toward goals, and when necessary, redirecting paths to goals (hope) in order to succeed	(Luthans & Youssef-Morgan, 2017)
		Optimism	Making a positive attribution (optimism) about succeeding now and in the future	
		Resilience	when beset by problems and adversity, sustaining and bouncing back and even beyond to attain success	
		Self-efficacy	Take on and put in the necessary effort to succeed at challenging tasks	

Table 3.3 Codebook – Mindfulness and Job demands - resources model (Resources, Demands, & Engagement)

Code No.	Code Label	Sub Code No.	Sub Code Label	Reference
RE	Resources	Job resources	Physical, psychological, social, or organizational aspects of the job level, needed to complete work goals	(Bakker & Demerouti, 2017)
		Team resources	Physical, psychological, social, aspects of the team level, needed to complete work goals	
		Organizational resources	Physical, psychological, social, aspects of the organizational level, needed to complete work goals	
DE	Demands	Job demand	Physical, psychological, or job aspects of the job level that require sustained physical and/or psychological effort and are therefore associated with certain physiological and/or psychological costs	(Bakker & Demerouti, 2017)
		Team demand	Physical, psychological, or social aspects of the team level that require sustained physical and/or psychological effort and are therefore associated with certain physiological and/or psychological costs	
		Organizational demand	Physical, psychological, or organizational aspects of the organizational level that require sustained physical and/or psychological effort and are therefore associated with certain physiological and/or psychological costs	

Table 3.3 Codebook – Mindfulness and Job demands - resources model (Resources, Demands, & Engagement) (cont.)

Code No.	Code Label	Sub Code No.	Sub Code Label	Reference
EN	Engagement	Work engagement	Experience when they immerse themselves in their roles, in their work	(May et al., 2004)
		Colleague engagement	How the person shows the capability to collaborate and cooperate with other colleagues in the organization	(Williams & Anderson, 1991)
		Organizational engagement	Psychological presence in their organization	(Saks, 2006)

Emerging themes revealed both anticipated themes and unanticipated themes from the interviews. Also, 365 surveys were distributed to the hospital and 260 surveys to the factory. From the total number of the surveys, the completed surveys were 291 respondents from the hospital 178 respondents from the factory. The surveys were collected and transferred into a quantitative software, SPSS for analysis. The survey data was imported to SPSS format to run statistical analysis; structural equation modeling is tested for mindfulness and employee engagement.

CHAPTER IV
RESULTS AND DISCUSSION

4.1 Results from the survey

4.1.1 Results from the survey at the hospital

There were 291 participants (N = 291, 79%, female) who completed the survey. The age of the participants was widely distributed, 20-30 years 20% (n=57), 31-40 years 30% (n=88), 41-50 years 30% (n=87), over 50 years 20% (n=59). Majority of participants age between 31-50 years. Table 4.1 showed 69% of participants had a bachelor's degree and above while 21% of participants had grade 4 to grade 12.

Table 4.1 Profile of participants at the hospital

Demographic of the participants at the Hospital (n=291)

		n	%
Gender	Female	229	79%
	Male	62	21%
Age	Less than 20 Year	-	0%
	20 – 30 Year	57	20%
	31 - 40 Year	88	30%
	41 – 50 Year	87	30%
	Over 50 Year	59	20%
Education	Grade 4	1	0%
	Grade 6	2	1%
	Grade 9	1	0%
	Grade 12	57	20%
	Bachelor degree	174	60%
	Master degree	25	9%
	Others	31	11%

Table 4.2 Means, standard deviations and correlations between mindfulness, employee engagement

	M	SD	1
1 Mindfulness	3.537	0.615	
2 Employee engagement	3.733	0.650	.717**

**. Correlation is significant at the 0.1 level (2-tailed)
*.Correlation is significant at the 0.05 level (2-tailed)

MIO mean score is 3.537, employee engagement mean score is 3.733 in the hospital context. Table 4.2 shows strong correlations between mindfulness and employee engagement (r=.717), This aligns with the expectation from the literature review (Cropanzano & Mitchell, 2005; Hutcherson et al., 2008b; Malinowski & Lim, 2015).

Table 4.3 Cronbach's alpha

Variable/Factor	Operational definition	No. of scales items	Factor loading range	Alphas
Mindfulness	Mindfulness is a focus on the present moment and paying attention to internal and external factors watchfully as well as paying attention to stimuli in an open and accepting minded (Brown & Ryan, 2003).	5	0.375	0.899
Employee engagement	''employee engagement can include an employee's relationship with his/her occupation or professional role, job, and organization (Saks, 2014, p. 172).	5	0.371	0.931

Table 4.4 Summary of extracted components with acceptable loadings and Cronbach's alpha

Factor name	Code	Component 1	Component 2	Alpha
Awareness	MF_aware	0.829		0.899
Describe	MF_des	0.876		
Acting with awareness	MF_acting_withawareness	0.844		
Non judgement	MF_des	0.863		
Non react	MF_nonreact	0.813		
Work engagement cognition	MIO_we_cog		0.780	0.931
Work engagement emotion	MIO_we_emo		0.918	
Work engagement behavior	MIO_we_beh		0.938	
Colleage engagement	MIO_ce		0.901	
Organizational engagement	MIO_oe		0.897	

Table 4.3 shows Cronbach's alpha of mindfulness and employee engagement at 0.899 and 0.931 respectively. Cronbach's alpha coefficients above 0.7 were examined for high internal consistency (Hair et al., 2010).

A summary of the extracted components with acceptable loadings and Cronbach's alpha is shown in Table 4.4 Extracted components show five factors in MIO larger than 0.7, and 5 factors in employee engagement is larger than 0.7 as well.

Table 4.5 Summary of extracted components with confirmatory factor analysis (CFA)

Mindfulness in organization	Construct	Variable	CMIN/DF	AGFI	GFI	RMSEA
Awareness		MF_aware	4.532	0.85	0.907	0.11
Describe		MF_des				
Acting with awareness		MF_acting_withawareness				
Non judgement		MF_des				
Non react		MF_nonreact				
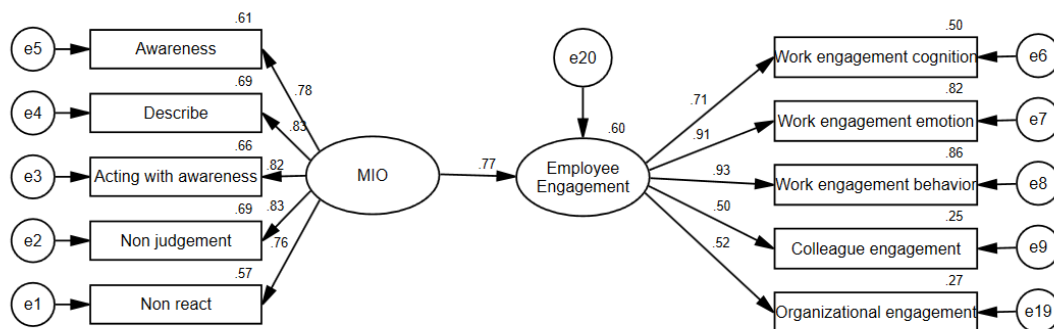
Figure 4.1 Structural equation modeling (SEM) at the hospital

Table 4.5 using confirmatory factor analysis (CFA), the validity and reliability of the two extracted factors was assessed by comparing the ratio of χ2 (Chi-Square) to df (degrees of freedom), which should be less than 5 (Marsh & Hocevar, 1985); Goodness of Fit (GFI), which should be over 0.90; Adjusted Goodness of Fit (AGFI), which should be over 0.85 (Schumacker & Lomax, 2004); and the Root Mean Square Error of Approximation (RMSEA), which should be less than 0.08 (Browne et al., 1993); (RMR) which should be less than 0.07 (Steiger, 2007). The CFA also supported H1. Mindfulness in organization was further predicted to employee engagement in healthcare context. Overall, the results align with the existing literature (Malinowski & Lim, 2015).

The results of the structural equation modeling (SEM) showed the positive direct effects of mindfulness on employee engagement. After all adjustments for model fitness, the structural equation modeling in Figure 4.1 was proposed. The fitness indexes achieved the required level with GFI at 0.907, AGFI at 0.85, and RMR at 0.03. The ratio of χ2 (Chi-Square) to df (degrees of freedom) at 4.532, and RMSEA at 0.11. The significant effects were shown in mindfulness in organization for employee engagement constructs at the significance level of 0.001.

The value of the coefficient of determination R-square of employee engagement is 0.597. The figure indicates the contribution of exogenous constructs, which showed the significant effect in estimating the endogenous construct employee engagement is 59.7%. 0.77 is the resulting path coefficients for mindfulness in organization and employee engagement. These results reveal that mindfulness in organization had significant relationships with employee engagement, and positively predicts enhancement of employee engagement at p < 0.01. Therefore, hypotheses H1 is supported. Mindfulness in organization can significantly and positively drive employee engagement at the statistical significance level of 0.01 (B = 0.77, p < 0.01). This finding is consistent with previous researchers (M. D. Klatt et al., 2009; Leroy et al., 2013; Malinowski & Lim, 2015)

4.1.2 Finding from the survey in the factory context

In the factory case, 178 participants (N = 178, 44%, female) completed the survey. The age of the participants was mainly at, 31-40 years 46% (n=81), 21-30 years

22% (n=40), 41-50 years 26% (n=46), over 50 years 5% (n=9). Table 4.6 shows 47% of participants had a bachelor's degree and above while 38 % of participants had grade 4 to grade 12. Age are mainly between 31-40 years. In comparison, ages of the hospital workers were widely distributed from 20-30 years to over 50 years. The education level of hospital participants was 69% with a bachelor's degree and above, which is higher than at the factory (47% of participants have a bachelor's degree and above).

Table 4.6 Profile of the participants at the factory

		n	%
Gender	Female	78	44%
	Male	100	56%
Age	Less than 20 Year	2	1%
	20 – 30 Year	40	22%
	31 - 40 Year	81	46%
	41 – 50 Year	46	26%
	Over 50 Year	9	5%
Education	Grade 4	3	2%
	Grade 6	8	4%
	Grade 9	20	11%
	Grade 12	38	21%
	Bachelor degree	78	44%
	Master degree	5	3%
	Others	26	15%

Table 4.7 Means, standard deviations and correlations between mindfulness, employee engagement

	M	SD	1
1 Mindfulness	3.931	0.640	
2 Employee engagement	4.076	0.626	.711**

**. Correlation is significant at the 0.1 level (2-tailed)

*.Correlation is significant at the 0.05 level (2-tailed)

Table 4.7 shows MIO mean score to be 3.931, employee engagement mean score is 4.076 in the factory context. In comparison, mean score of employee engagement (3.733) at the hospital (Table 4.2), is lower than at the factory, with work engagement (4.067) (Table 4.7). This may be because of the high level of stress for healthcare workers (Burton et al., 2017; Cohen-Katz, Wiley, Capuano, Baker, Deitrick, et al., 2005; Fiabane Elena et al., 2013), which may lower the engagement level of

healthcare workers. Table 4.7 shows the strong correlation between mindfulness and employee engagement (r=.711).

This aligns with expectations from the literature review (Cropanzano & Mitchell, 2005; Hutcherson et al., 2008b; Malinowski & Lim, 2015).

Table 4.8 Cronbach's alpha

Variable/Factor	Operational definition	No. of scales items	Factor loading range	Alphas
Mindfulness	Mindfulness is a focus in the present moment and paying attention to internal and external factors watchfully as well as paying attention to stimuli in an open and accepting minded (Brown & Ryan, 2003).	5	0.174	0.912
Employee engagement	''employee engagement can include an employee's relationship with his/her occupation or professional role, job, and organization (Saks, 2014, p. 172).	5	0.375	0.917

Table 4.8 shows Cronbach's alpha of mindfulness and employee engagement at 0.912 and 0.917 respectively. Cronbach's alpha coefficients above 0.7 were examined for high internal consistency (Hair et al., 2010).

Table 4.9 Summary of extracted components with acceptable loadings and Cronbach's alpha

Factor name	Code	Component		Alpha
		1	2	
Awareness	MF_aware	0.838		0.912
Describe	MF_des	0.886		
Acting with awareness	MF_acting_withawareness	0.911		
Non judgement	MF_des	0.875		
Non react	MF_nonreact	0.799		
Work engagement cognition	MIO_we_cog		0.668	0.917
Work engagement emotion	MIO_we_emo		0.941	
Work engagement behavior	MIO_we_beh		0.936	
Colleage engagement	MIO_ce		0.952	
Organizational engagement	MIO_oe		0.914	

A summary of the extracted components with acceptable loadings and Cronbach's alpha is shown in Table 4.9. Extracted components show that five factors in MIO are larger than 0.7, and these factors in work engagement are also larger than 0.7.

Table 4.10 Summary of extracted components with confirmatory factor analysis (CFA)

Mindfulness in organization	Construct	Variable	CMIN/DF	AGFI	GFI	RMSEA
Awareness		MF_aware	6.99	0.667	0.794	0.184
Describe		MF_des				
Acting with awareness		MF_acting_withawareness				
Non judgement		MF_des				
Non react		MF_nonreact				
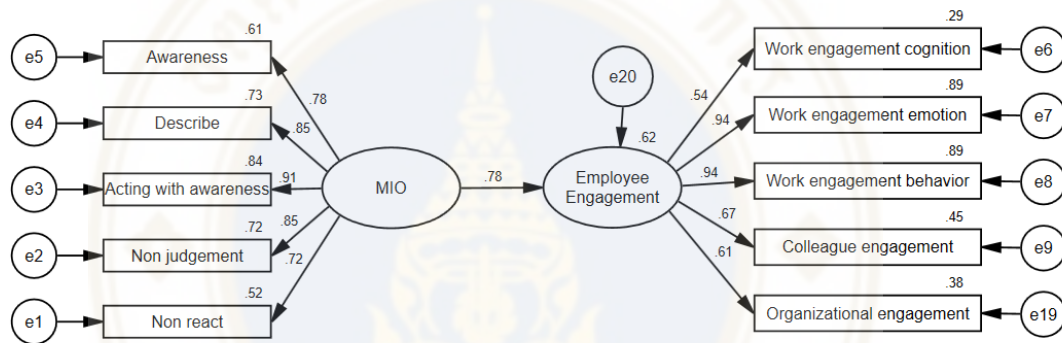
Figure 4.2 Structural equation modeling (SEM) at the factory

Next, the results of the structural equation modeling (SEM) show the positive direct effects of mindfulness at the organization on employee engagement. After all adjustment for model fitness, the structural equation modeling in Figure 4.2 was proposed. The fitness indexes achieved the required level with RMR at 0.042. The ratio of χ2 (Chi-Square) to df (degrees of freedom) at 6.99, GFI at 0.794, AGFI at 0.85 and RMSEA at 0.184.

Significant effects were found in mindfulness in organization for employee engagement constructs at the significance level of 0.001. The value of coefficient of determination R-square of employee engagement is 0.615. The figure indicates the contribution of exogenous constructs, which show that a significant effect in estimating the endogenous construct employee engagement is 61.5%. 0.78 is the resulting path coefficient for mindfulness in organization and employee engagement. These results

reveal that mindfulness in organization has significant relationships with employee engagement, and positively predicts employee engagement at $p < 0.01$. Therefore, hypotheses in H2 was supported. Mindfulness in organization can significantly and positively drive employee engagement at the statistical significance level of 0.01 (B = 0.78, $p < 0.01$). These findings are consistent with the findings of previous researchers (M. D. Klatt et al., 2009; Leroy et al., 2013; Malinowski & Lim, 2015).

4.2 Findings from the in-depth interviews

The in-depth interviews showed the anticipated results in psychological capital, perceived resources, and perceived demands. These are bridged into emerging themes in engagement at three levels including work engagement, colleague engagement and organizational engagement. Also, the emerging theme from the findings revealed a novel anticipating theme from the initial framework. These will be presented below.

Table 4.11 Job position and occupation of interviewees from the hospital

Interviewee position and occupation		No. of interviewee	%
Job position	Supervisor	12	43%
	Employee	16	57%
Occupation	Doctor	4	14%
	Nurse	16	57%
	Healthcare worker	8	29%
	i.e. Physician Pharmacist		

Table 4.11 shows job position and occupation of interviewees from the hospital. In job position, 57% of interviewees work with no subordinate while 43% of interviewees work at the supervisor level. Majority of interviewees were nurses (57%). Doctors were 14% of interviewees. Apart from nurses and doctors, there were healthcare workers consist of various occupations (29%) including Physician, Pharmacist, Medical laboratory technologist, Facilities personnel and Administration manager.

Table 4.12 Job position and occupation of interviewees from the factory

Interviewee position and occupation

		No. of interviewee	%
Job position	Supervisor	11	41%
	Employee	16	59%
Occupation	Production personnel and inventory	8	30%
	Financial and accounting	6	22%
	Sales and customer service	7	26%
	Quality assurance and diagnostic office	2	7%
	Research and marketing planning officer	1	4%
	Engineering manager	1	4%
	Procurement personnel	1	4%
	Director	1	4%

Table 4.12 shows job position and occupation of interviewees from the factory. In job position, 59% of interviewees work with no subordinate while 41% of interviewees work at a supervisor level. Majority of interviewees were production personnel and inventory (30%), Financial and accounting (22%), Sales and customer service (26%) and Quality assurance and diagnostic office (7%).

Figure 4.3 and Figure 4.4 depict the analytic model of mindfulness in the organization in the coding process for the hospital and factory respectively. The analytic model was formulated from transcribed interviews. The semi-structured questions covered the main components of the JD-R model including, personal resources, job resources, and job demands, as well as three levels of engagement which consist of work engagement, colleague engagement, and organizational engagement. Although semi-structured questions provided the fundamental framework for the coding process. The emerging themes from the interview were revealed freely from the answers interviewees provided from their own experienced with MIO on engagement at different levels.

They show repeated answers and their connections in nodes. Repeated answers were recorded in Nvivo. Then, repeated nodes were transformed into an analytical model for each case. This assisted the researcher to see an overview and its connection form semi-structures. Later, this assisted the researcher to unveil the emerging themes. In the following parts, the emerging themes from psychological capital, emotional intelligence, perceived resources, perceived demands, work engagement, colleague engagement, and organization engagement will be discussed respectively.
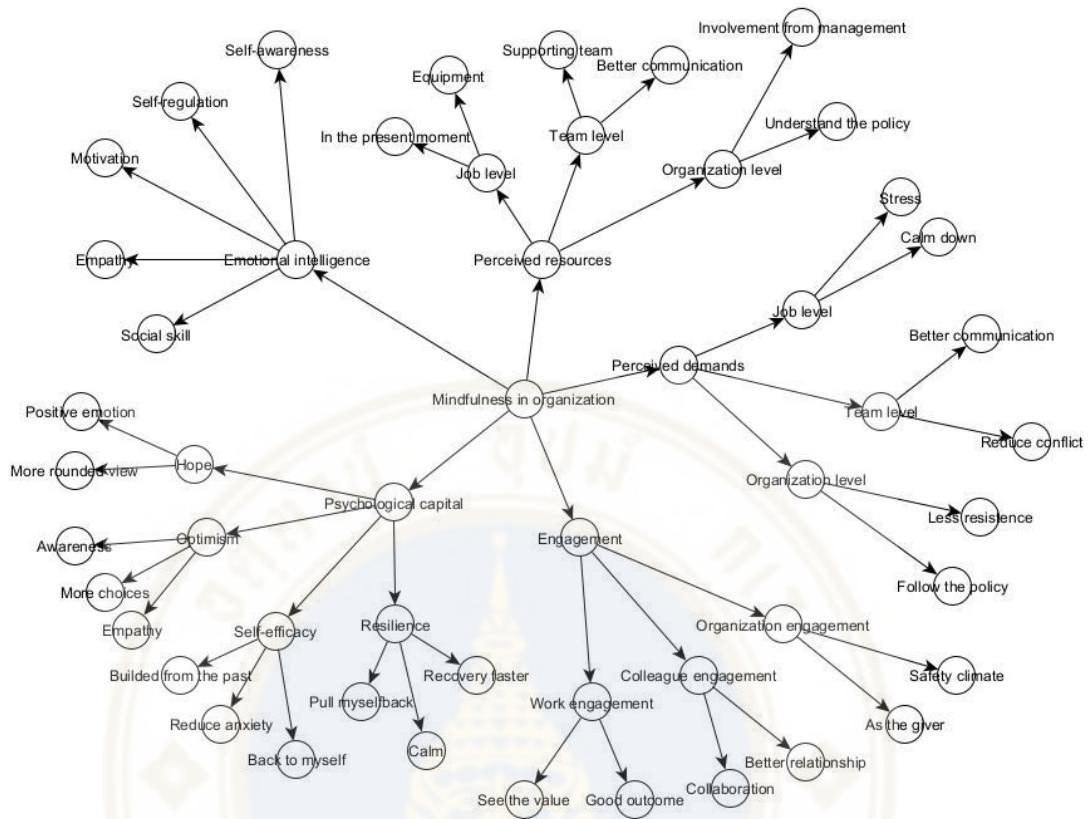
Figure 4.3 Analytic model of mindfulness in organization in coding process at the hospital
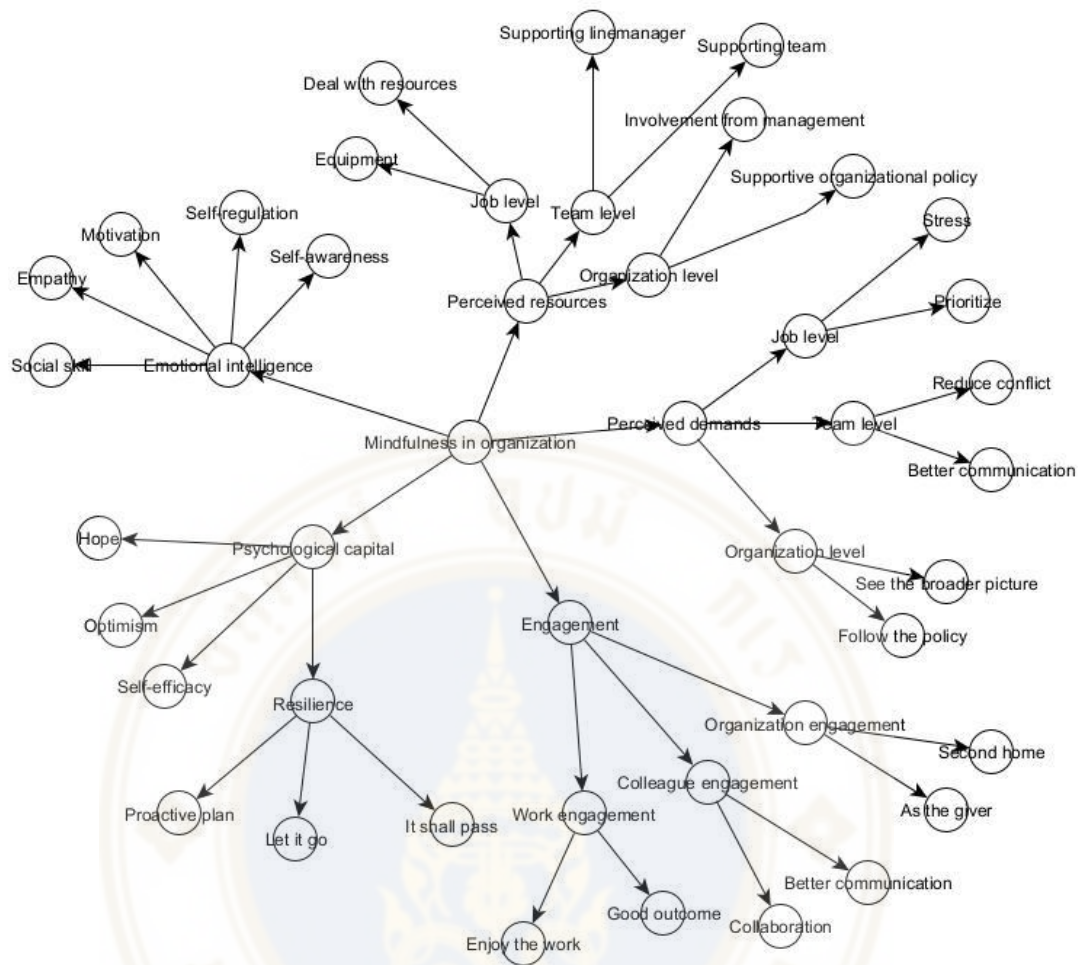
Figure 4.4 Analytic model of mindfulness in organization in coding process at the factory

4.3 An enhancement on psychological capital

4.3.1 Hope

Hope was revealed from practicing mindfulness, when respondents were able to think slowly and looked at situations in a rounded perspective. This provided them hope regarding their situation. Mindfulness helped an individual to stay calm with positive emotion and to be able to see a potential solution with hope. Also, it revealed that mindfulness practices enhance hope in individuals and supports them to see potential paths to achieve their goal.

"Mindfulness in the organization helps. It helps me to come to a review, having a chance to review and look at many things in the way that it … it's creative, will not find a dead end." Nurse #1 (Hospital)

"This one is because it is slower, a way of thinking that is more rounded." Nurse #11 (Hospital)

"In my opinion, it does at a certain level. Assuming that what I do, the line manager assigns me a task and it is beyond my ability, I need to think and consider that I have mindfulness. I can ask for advice from my supervisor, then gradually work on it." Production personnel #1 (Factory)

Hope was observed from the employees, who perceived that there was support from the team and the supervisor available for them to achieve a certain task. Despite the fact that an individual may not be able to complete the assigned task alone due to limitation in abilities, individuals had hope and saw the path that the assigned task could be completed with support from colleagues and supervisor they had a good social relationship with. This was reflected as

"Well, there is hope. I have a way. I have tools. I have methods. I see ways to take myself or invite other people who want to go with me with something like that. Or I have the opportunity to see many things, I have opportunity which proposed to me, this gives me hope." Nurse #16 (Hospital)

4.3.2 Optimism

Individuals reflected that MIO helped them to have more perspective towards situations they were confronting. Also, this could come in a form of how they interpreted the situations relating to the team. Some participants mentioned that they tended to be less judging toward other colleagues. As the employees stated that they also viewed the positive sides in other colleagues and tried to understand the differences they had within their teams.

"Well, there is an effect. As I said, it is like, well, like I said that day. After doing it back, it was like, Um, making me look like the optimists like… Like that day, remembering that I feel very happy, the child is crying. I am like. Um, I am optimistic." Doctor #2 (Hospital)

"Well, if I am optimistic about this it can benefit me. I am not stressed. I do not think. I do not see that I am optimistic, and everyone will be excellent. Instead, think that if I, If I am optimistic, the person who benefits is myself. I don't. I don't have to be suffered, letting go, anything like that." Sales person #2 (Factory)

Employees also commented that they had an awareness in their interpretation that it affected their emotion and level of suffering from what negative thought could create. Therefore, they maintained their emotion and had awareness in how they viewed the external environment. For instance,

"Think positively from going, going ... going to review from the training sessions. Causing me ... but before I may I may think a little bit negative sometimes, but when I add this training. Suddenly, it makes me, what I can do to make me happy? Meaning that if I think negatively, it will be suffering. That's it. Something I have to look positively first, it encourages me to work." Nurse #1 (Hospital)

4.3.3 Self-efficacy

The respondents reflected that MIO could enhance how the viewed their capability. With mindfulness, the view they had with the situation was shifted. Initially, there might be the view that they might not be able to cope with the situation. However, mindfulness could support them to see that they could do it. They reflected that they had less anxiety and more confidence in their capability.

The participants described that MIO helped them to remain calm, reduced anxiety when doing their work. One participant mentioned that mindfulness practices could help him/her to be less anxious when he/she needed to perform the work to help the patient. S/he stated that

"Belief in my own ability ... Hmm ... I don't know. It has. It has the feeling that ... But before the time of an accident on the road, I would not dare to go down to help. If not wearing a nursing gown, If I wear normal clothes but after all, it has a feeling that it's me ... I can do it ... If I were the injured person? Someone passed by… If I were the injured person… No one helps anything… what to do next? So, I feel that I have to give a little help to look at his symptoms, at least. Maybe like CPR, means that pump him and then die at that time? Or didn't help, then did he have a better life? But at least I went down and I helped." Nurse #13 (Hospital)

"Right now? Believe that I have a high ability to work. Because when I encounter a problem like the customer called to tell me that using our products has a problem. I can solve the problem immediately. In the beginning, I do not really know whether I can solve the problem. But by being mindful before I start my work, I find out the root cause to solve the problems and how to solve that problem for customers." Sales person #1 (Factory)

4.3.4 Resilience

Interview participants reflected that failures were something natural and can always happen. However, mindfulness practices helped them to get through the difficult period, rise from the negative thought, learn from the failure and bounce back from adversity. Some employees stated that some disappointment was natural. This had been shown in both the occupational area and personal life of the participants. One participant reflected that

"The failures, look at it as… failure is a normal part in life. It might be happiness, fulfill one's hope, up and down. Looked as if it fails, I still have a chance to have time to do it from the failure. I can accept it. I think that it is a lesson to me, then I make me use those experiences from the failure, find the drawback, what's the point that it fails." Nurse #5 (Hospital)

Besides, there was an awareness that brought them back when they encountered unfavorable situations. One of the employees explained that he/she would be aware of themselves that he/she should not sink into their own thought for too long. He/she needed to have the awareness to bring himself/herself back to the current situation. The participant mentioned that

"Yes, as soon as I do not sink, suddenly like .. anger, moody, irritability, the negative emotions that arise, it will resolve by itself, and then I will, I will think that what should I do next with1, 2, 3, 4 things that happened, something like that. It's like I will make a decision based on the true reason without making a decision while I am drowning in emotion, such that." Nurse #8 (Hospital)

As a part of resilience, mindfulness helped practitioners to cope with challenges in their personal life as well. One of the participants applied mindfulness practices when she handled challenges from cancer treatment. She mentioned how

mindfulness helped her in dealing with cancer. It helped her to come back to her own breath.

"Asking if the pain is reduced or not, it does not reduce pain in each chemotherapy, it does not reduce. Nausea, it does not reduce. It will be the same as before. But if I come to myself and my own breath, I feel it is not chaotic. It has no symptoms, there is no other thing on it ... externally, it must already exist ... It doesn't fill up this matter." Nurse #2 (Hospital)

The participants revealed that MIO could help them to bring themselves back faster from adversity. MIO could help them not to stay stuck or be consumed by old problems. The adversity still created a negative impact on the individuals. Nonetheless, the participants reflected that they could recover from the situations faster.

"If I compose it well, I think every problem, it should pass. But if I am obsessed with the old problems, I don't look ahead. I think it can't pass. The past is. It has already passed, but I've also had the experience. I'm drowning in the old events until ... until like it ... I don't want to do anything." Maintenance personnel #1 (Factory)

"This is the ability to recover in difficult situations. This one needs to be really mindful a lot. If you are mindless, then you cannot be returned, the ability to recover in difficult situations." Production personnel #2 (Factory)

4.4 Enhancement of emotional intelligence

Apart from the psychological capital which we have anticipated from the literature review, MIO could also enhance emotional intelligence. The emerging themes of emotional intelligence emerged later during the data collection in the fieldwork. The repeated theme of self-awareness, self-regulation, motivation, empathy, and social skill were emerging in the interview. Then, a construct of emotional intelligence (Goleman, 1996) was revealed from further study in the literature review. From this, self-awareness, self-regulation, motivation, empathy, and social skill were amalgamated into emotional intelligence.

From the interviews, the participants revealed that MIO could enhance them in other aspects including self-awareness, self-regulation, motivation, empathy and social skills.

4.4.1 Self-awareness

Some of the interviewees mentioned that mindfulness practices helped them to be aware of their thinking and had awareness of their emotions. One of the participants commented that

"Well ... It is similar to other events. First, it must be, I have to be aware of myself. Once I have no emotions involved, I will be able to see the reason or see the facts more clearly." Pharmacist #8 (Hospital)

This aligned with another interviewee who reflected that mindfulness in the organization helped them with self-awareness. The participant said that

"I think it helps because, first, just like being aware of your own thought, if you feel like you are making a lot of mistakes, like that, then you have to think of one, one, two, three, what it is and separate your thoughts." Nurse #12 (Hospital)

Also, self-awareness could come in the form of self-awareness of the physical body. This was revealed as the physical response to external circumstance. For example,

"Yes, my stress will be high. Yes, the blood pressure will rise." Nurse #10 (Hospital)

"The face is getting hot, like a heart trembling. The heart will be pounding aggressively, indicating that I started ... started to have emotions. I will realize practicing mindfulness is the practice of awareness." Nurse #12 (Hospital)

The participants reflected that mindfulness supported them to be aware with themselves, knew what they were doing. A repeated theme from the interviews was that MIO could help them to know what they were doing, be aware of what they performed. Self-awareness helped them to prioritize the work that they need to handle better.

"It makes it more like… for example, I came to know that what I am doing right now, and like when I knew it, I will work in the way that is faster." Research and marketing planning officer #1 (Factory)

4.4.2 Self-regulation

After individuals reported self-awareness in what they were thinking and emotion they felt, they mentioned that there was a part that they gradually thought of the benefit and cost of the reaction they were going to take. This helped them to regulate their action as their response to their circumstances. They reflected that mindfulness supported them to control their emotion. They revealed that knowing what they felt could help them to regulate their action instead of reacting toward situations mindlessly. Self-control is important for reactive action they might have with the circumstances. The interviewees mentioned that

"If I am not with myself, without knowing my emotions, I might shoot or jump in, calling shoot harsh words with him." Nurse #7 (Hospital)

"So, try to control emotion. For me, this development, I start to get the benefit, and practice to employee. Practice every employee to know how to speak, know how to prioritize their thought in speaking." Director #1 (Factory)

"I understand at that time. Asking if I am unmindful, no self-control, I believe that there is a chance that I will have to respond with a high tone of voice." Sales person #5 (Factory)

"It is at the level that I am able to, what do they call? Can withstand various conditions ... can be improved. Endure what kind of pressure ... better. Because I work with customers. I can't control our customers. What I can do is I control myself." Sales person #2 (Factory)

4.4.3 Motivation

The effect on motivation was revealed in the practices of mindfulness meditation. The participants mentioned that instead of slipping to negative feeling, they could see their goal. There was a will to do better to achieve the goal. A respondent revealed that MIO enhanced their motivation by keeping oneself seeing the clear goal, they were motivated. They could keep their clear goal in mind even though there was a barrier in the situation, and discouragement was raised when adversity occurred. This can be observed by what the interviewee mentioned

"When the mind has developed, I see that the goal or hope that I want to do is like having energy to fuel me. If there is no mental development, most of the time my

mind will flow down to a low place. It will look like Ehh is sluggish. Not powerful. But, when I entered the project, I felt that it was like having fuel. Give me energy, I wanted to make it to the goal or hope or something. Just like it has the power within me." Nurse #5 (Hospital)

"But I just think that if ... if ... I have a clear goal, to make it go ... uh ... what I set, I can do ... improve myself, like that. Can make myself and look at the goal once I have goal, I put it. I think that many people can do it. Because I already have a confidence in myself, something like that." Quality assurance #1 (Factory)

"It is not something like, when I am down, they will say something like hey, did you do your best? Something like that. And then, let's try learn from what I did that day, try to rethink again that what you did was good or not? Something like this, and after I did and they asked how it was going? Do it and is it good? Something like this. it will be more like that. This place is living like a family." Sales person #5 (Factory)

4.4.4 Empathy

Another element emerging from the individuals was empathy. The participants stated they were less judging of others and tried to understand their actions, thinking that there could be some rationale behind actions they saw on the surface. The respondents mentioned that MIO supported them to think of the broader picture in their work process and helped them to think about the feelings of others. Individuals could feel empathy for other colleagues in other functions who needed to get their output and in order to function. Also, empathy appeared when individuals sensed other's feeling and tried to understand what the other was handling beneath the surface of the action.

As one interviewee mentioned,

"If we ... if we are all mindful, right, know the role of oneself, and understand other, have empathy on other, doing something, I will not judge that they do wrong things or they might have some reason behind that, behind the scene, right. So, I think that as we do our responsibilities. Well, we do not go hurting other people or another thing is generosity. Empathy will reveal itself." Administration manager #1 (Hospital)

"Because in our work, it must have the next process. Because if we are thinking that, yes, this piece of work, we review, okay, good, no defects, the next person

to take over our job is not to worry. They were able to take our work to continue or to do something else, no need to ... what is called? Don't have to wait to worry to recheck anything? Don't waste time." Diagnostic Officer #1 (Factory)

"I think there is. If I have more mindfulness to look at it, do it ... is ... come to analyze it ... like knowing someone, right? May not think well of him but if I come to be mindful, think deeply about what problems he has? Why is he saying this? Have time to think I may be able to look in another way." Procurement #1 (Factory)

4.4.5 Social skills

One participant mentioned that MIO helped him/her to know what he/she should say to his/her colleague in order to engage them. Moreover, participants reflected that mindfulness in the organization created opportunities to know more colleagues whom they had never talked to before. After the training session, colleagues still greeted one another in the hallway. Social skills could be observed from the better relationship. The employees mentioned that a better relationship helped them to operate their work easier. One participant reflected that

"Well ... if someone does something wrong, I will start by creating a relationships before beginning ... beginning relationships first and then give her the opportunity to talk and encourage her. And help each other find ways." Nurse #1 (Hospital)

"I got to know each of them. They have not known me earlier. We meet, we talk together. Better than walking by and don't know each other. Oh, this person works in a hospital but never talking to each other." Facilities personnel #1 (Hospital)

"Because it's a matter of relationship or take the use in the system, will make the system in the organization run smoothly. It will be a matter of ... for what I experienced, it will be a matter of relationship in the department as well. Because I believe that if relationships in the department are good or relationship between the departments is good, it will help us to coordinate better." Nurse #2 (Hospital)

The respondents reflected that MIO supported them to understand their colleagues better. Better understanding of their colleagues supported them to approach other colleagues and develop social relationships. This could help the way individuals approached their colleagues to develop a relationship.

"As mentioned in the beginning that ... Some people may be in a variety of emotions. I must have ... What do they call, it requires strategy, but because I know that what is his style, what type, how I handle him, work like this, people like this, I see it through, to the point that this person is suit with what type of job?" Production personnel #5 (Factory)

"Relationship with friends, working, able to know, who is our customer. Who is the customer of accounting, who are they that need to contact me? what do I want from them? What do they want from me? something like that. It is more communication." Finance personnel #1 (Factory)

4.5 Perceived resources

4.5.1 Job level: Hospital context

4.5.1.1 Awareness of resources or equipment to perform the task

For resources at the job level, participants reflected that their perspective on resources or equipment was improved. Less frustration toward situations where equipment didn't work right. The participants mentioned that

"And something does not need to get more, it's okay. For the stuff, for example, computer is broken or what to say, tools that I use, the old examiner that is broken. In the past, I was irritated when I used it, Ohh, Can't be. Hey when are they going to change it? That's the past. But now, I calm down. I will send it to fix. I can wait, then I can use another tool from another room, just walk and get it from another room, something like this." Doctor #1 (Hospital)

"It's better like the perspective on the hardware, right? So, I, I, I work with equipment which mostly are computers, I have the view that if these computers break down, I look at it as it might be its useful life, something like this. In the past, I, I look at it, why it is not good, why it does not work, right? Why it is broken, have no effectiveness. But if I look in the period that it was bought or used, this could be enough for the price and its usage." Nurse #15 (Hospital)

4.5.1.2 In the present moment at work

Also, the participants described that MIO supported them to have more attention and be in the present moment during work.

"Once it is like that, it makes me like, going to do something umm … going to do one thing and think, like that percent (total focus) that I will use to do other things will be diluted, It's like, in my head, there will be this story, only this story, about dad, dad drink alcohol, he goes to this and goes to that, does not stay in place. When I come to look after the patient, this story disturbs my mind. Will I prescribe drug incorrectly; will I prescribe mistakenly. But once I practice meditation, from the instructor, right? This helps me a lot." Nurse #7 (Hospital)

"I … looked that way ... way I live with the present, MIO will help me to look at the present that umm this situation, size of the hospital or we are the government hospital. At this point, is the best, it's like, like, around this. I cannot compare with places that very advance with a lot of budget. So, I stay with this one, trying to create quality for it, this is better." Medical laboratory technologist #1 (Hospital)

4.5.2 Job level: Factory context

4.5.2.1 Awareness of resources or equipment to perform the task

The respondents reflected that MIO supported them to handle equipment they required to perform the job. It supported them to use it with attention, which enhanced safety. Besides, mindfulness supported how they coped with limited resources they need to perform assigned tasks.

"For me, when I work with the machine, those safety, safety glove, something like that, it can help me a lot." Inventory personnel #2 (Factory)

"Oh, as if talking about the ones I use a lot. May be an office computer. At this point, I think that one is working. If we are mindful in using, we must understand it first. How does it work? Regardless of the various programs that are inside, such as Excel, PowerPoint, something like this." Diagnostic Office #1 (Factory)

"Oh, this is how ... It's easy ... Like this case, I've seen this case. That the calculator is broken. Meaning like yesterday I was able to use it. But immediately after arriving, it doesn't work anymore. I don't know why. I went to

get another one from my junior, or I do use that one. So, not, not, not use the calculator, I go to use computer to calculate instead., something like this, to plus the numbers" Accountant #3 (Factory)

"It supports. Sometimes, I know that, okay this is the limit. Once it reaches the limit, I understand. Okay, it can do this much, do we have another method. Um, this is, that comes to support me." Sales person #4 (Factory)

"Yes, it helps. Because, sometimes that it won't work the way I wish, right? I will be like. Before this, I will act aggressively with emotion, something like this. But once I do this thing, I have a feeling that, let's try it again, it won't waste much time, something like this. It is like, um, it works. It may take some time more, like that. And it makes thing, come back, something like that." Sales person #5 (Factory)

4.5.3 Team level: Hospital

4.5.3.1 Better communication

Some participants mentioned that MIO had a positive influence on their communication by having both better listening skills, and speaking mindfully with their colleagues. The improvement in the communication nourished relationships in the team.

"But once we passed the training immediately, colleagues or any relationship? When talking to each other, you will know that, of course, we have to talk like, in a creative way. To strengthen each other, then if there is an irritated mood or bad words on the phone ... He can listen, listen and then be still." Nurse #1 (Hospital)

"But later, I look that, sometime, we do not need to go anywhere. But we can talk with understanding, have a listening, something like this, be mindful in the listening, and we care for one another. I think sometime this is, might be the solution to the root of the problems more than going to do something that distract us only." Nurse #16 (Hospital)

4.5.3.2 Supporting team

MIO helped to enhance supportive team members as well as a supporting line manager. Employees reported that they had supporting team and line manager to overcome challenges in their task. The participant mentioned that

"Yes, I will see that they do. They have determination. Everyone has the same goal that is to make the work succeed, for this point. I will see that everyone has a collaboration, intention." Nurse #14 (Hospital)

"If you mean things that support in my work, there are many things, people, money and stuff, like that. For this place, for people, after we have activities, there are no problems." Doctor #1 (Hospital)

4.5.4 Team level: Factory

4.5.4.1 Supporting team

The respondents reflected that resources at the team level included that they were able to ask for help or support from colleagues when they needed to handle an unfamiliar task. They mentioned that this could be an encouraging work environment in the team.

"It's like saying that, anything at work, I have a problem or a subordinate has a problem. Able to consult like that, such as working, asking, I do not understand. You can ask. Because working here, if you don't understand it, it can't go on." Inventory personnel #1 (Factory)

"Using computer, I may not know a lot, but I will go … Asking if I have mindfulness. Well, someday I have to do it. May ask someone who knows what it is, how they are used, how to learn, and then I apply, something like that. Then, I am able to use and then able to complete that work." Diagnostic Office #1 (Factory)

"Having fun in working, not stress, in addition, team are okay, my colleague, my line manager. If I have any problem, I can consult and ask the line manager to give a good advice to us." Production personnel #2 (Factory)

4.5.4.2 Supporting line manager

The respondents reflected that mindfulness could support them in getting advice from their line manager. They mentioned that proposing a new idea was possible with the supervisor. The supervisor is open to a new idea, and a new way of working.

"Problem… Difficulty with working, if I cannot handle it or you still cannot find flaws. You consult with the supervisors, that is, gradually thinking, gradually thinking, whatever, but if I still do not understand. I don't just do it by myself,

as what I understand it myself. Don't just do it. I have to ask the person who did it before or the supervisor." Production personnel #2 (Factory)

"As I mentioned, in my part, the supervisor is quite open to the idea, in proposing idea, creating the work, path, method, having new way of working to support, to propose, the supervisor is quite open." Customer service #1 (Factory)

4.5.5 Organizational level: Hospital

4.5.5.1 More understanding in organizational policy

MIO enhanced how employees perceive or review resources the organization uses to support individuals. The participants mentioned that MIO could support them to view policies from the organization differently. As mentioned in the interviews, MIO supported participants to perceive policy in a more positive view. The participants mentioned that

"The first thing is to agree with the director's policy. I like it because people matter is the main resource that it would be good to change it. So bad, if not taking care of people first. Then it is not good. Then, I agree with his policy, he took everyone, try to get everyone. Even doctors which are not interested in activities in hospital. He tried to bring them to know, know that he is trying to develop the organization like this." Doctor #1 (Hospital)

"It's ... it's changed, it's like for me I understand executives more that they provide the policy, something like that. What are the reasons? Because, sometime, sometime they just receive from the senior, and did not think by themselves. From getting order to do this and that without interest or not even know why they required us to do it." Pharmacist #2 (Hospital)

4.5.5.2 Involvement of management

From the implementation of MIO, some participants mentioned that they recognized support from the management on their issues, even if limited resources prevented a resolution. The participants appreciated the implementation of MIO as another source that support them in their work. It reveals recognition in well-being of healthcare workers from the management in both work and psychological wellbeing.

"Better then, maybe it ... There are conflicts in each organization, which is the need and response, maybe it ... it cannot meet, like I want people like this, but the management team may not give us. But I ... can still accept that they still see the importance of our problems. Maybe, help in other way." Nurse #13 (Hospital)

"I think they fully support. Well, doing something like this, let us free, that is, there is work like this, that they will give me ... do not hold it ... Hey, why not doing this, doing that. They let me utilize myself, go for it, do not picking up on me, you should do this first, something like that." Facilities personnel #1 (Hospital)

4.5.6 Organizational level: Factory

4.5.6.1 Supportive organizational policy

The respondents reflected that MIO supported individuals. They perceived that MIO supported them to have meditation practices, which could enhance them in both work and their well-being. MIO was perceived as a policy at organizational level, which supported individuals in their work.

"About the policy, but ... Here the policy is quite good. Regarding mindfulness, it has a clear response. First is the matter of mindfulness. He ... is ... He gave us the full. He can have period ... period ... of internal broadcast to make us mindful. In the management perspective, they care about ... employees a lot because they have internal broadcast every period, every period. Therefore, it depends on each person how much they can accept. Some people are doing their best, some are ... I'm going to be distracted like this. When the sound of mindfulness comes in, it starts to do for 5 minutes. It helps ... helps to pull ... pull the mindfulness back." Maintenance department #1 (Factory)

"It supports. As I told you that if they or the organization encourages me to feel ... Practicing meditation or mindfulness often, like that, the work will lead to less errors. I may be more mindful at work." Research and marketing planning officer #1 (Factory)

4.5.6.2 Involvement of management

The respondents reflected that resources at the organizational level could be executives who supported good practices such as MIO, as well as other

learning encouraged in the organization. Individuals reflected that executives could be one of the main reasons that brought MIO in the organization.

"The management here is kind. They are the teachers, quite a lot. I have learned many things from executives, including attitude, pathway, teaching, like that. And the executives are quite, if I have the problems, I can often be a part that have question in the meeting, if I do not understand, I will raise my hand in the meeting, like that, he will answer, like that." Customer service #1 (Factory)

"Oh, basically, the mindfulness program, the executive is already well supported. I'm at the point, which I think is, he must already see the benefits that he put this program to apply in the organization. He thinks that if we apply it to all of our colleagues ... that will improve the potential of our colleagues. The work in the various parts has more quality. At this point, I think he would see a benefit, a long time ago. So, he must bring it to use and to train to all level of the colleagues at this point." Diagnostic Office #1 (Factory)

4.6 Perceived demands

4.6.1 Job level: Hospital

4.6.1.1 Cope better with stress from work

Mindfulness can help an employee to deal with the demands from work, which might come in terms of a stressful workload for healthcare workers. The emerging theme revealed that mindfulness could enhance employees to prioritize job demands. One nurse mentioned that

"The full slot is 5 but we only have 3 nurses. How can we do it to work well and not get stuck? I need to use mindfulness. Need to talk together, first, agree that we only have 3. We will do our best, not like, actually we have to be angry, right? Angry why few people, the work is heavy." Nurse #12 (Hospital)

4.6.1.2 More calm

Mindfulness could play a role in helping employees to cope with stress and dealing with a rush pace. MIO can alleviate the demand at the job level by

increasing the opportunity for mindfulness practitioners to remain calm. A participant explained that

> *"It works with humans, and stress that occur, it occurs from our good willing, but it might make coordination or ... the rush with workload that it has a lot, then it does not catch the pace, anything like this. This may make people impatient. Whether the client or the patient or the colleague even ... at home before coming to work or from work to home, like that. It's likely to make me restrain my thought, restrain my thought, so it does not create, so called misunderstanding. So, doing whatever to live in harmony by using mindfulness."* Medical laboratory technologist #1 (Hospital)

4.6.2 Job level: Factory

4.6.2.1 Prioritizing

The respondents mentioned that MIO helped them to cope with their workload and to be able to prioritize job demands. One respondent reflected that loaded with work demands make her feel overwhelm. This is likely to lead to problems with coping and handling issues. Mindfulness helps to prioritize, and handle perplexing demands.

> *"Just as I said, it makes my heart to be stable. I can prioritize what is the most important and what is important, less important, will gradually do, can rank the work"* Sales person #2 (Factory)

> *"Yes, because if ... if so, let's say I say green curry. I will know what the ingredients of the green curry are, but come as "Kaeng Ho," then I opened the refrigerator, I didn't know what I found. I use what's left over there to cook. It has no boundary, no rules, something like that, some kind like that."* Sales person #5 (Factory)

> *"Actually, it ... it ... it helps. Mindfulness, it will give me ... Helps in matters of prioritization of work because if I don't line up at all. That will get this item, those will take that, something like that, it will be messy. But if I have a little mindful of what work is very important, which is less important, what you want first. I would do anything like that, something like that to prioritize your tasks. I will have to follow the steps to keep it going."* Accountant #3 (Factory)

4.6.2.2 Reducing stress

The respondents mentioned that MIO alleviated the stress due to work demands. Being calm and aware of what they are doing helps to mitigate stress in their work. Also, the participants reflected that MIO could help them to be less distracted with their thinking. This supported them to be still and calm in order to get back to work.

"This helps to reduce stress in my work. It's like when I am doing something, if I am mindful, I know what I am doing, this already helps me to reduce stress." International sales person #1 (Factory)

"It's ... it's a yes. Sometimes I am stressed, or being distracted with my thinking? I may meditate or be mindful for 5 - 10 minutes. It will make me like ... have more thoughts. And it's like, like, like ... still a lot more I do not ... no more being distracted, then come back to work." Research and marketing planning officer #1 (Factory)

4.6.3 Team level: Hospital

4.6.3.1 Better communication

Mindfulness in the organization can alleviate demands at the team level from two components. From the emerging theme, the components of communication and a reduction in conflict were revealed. The participants reflected that MIO helped them to have a better way to communicate with their colleagues. As one of the participants mentioned,

"Like I said earlier, I know that this person, if she comes harshly, I will not respond harshly back. But for this person, this need to push a bit, so she will work, like that. It is like knowing each other more, know how to manage people. For someone, I must not use the force, like that. For someone, I talk nicely. For someone, I need to talk with reasons, like that." Administration manager #1 (Hospital)

4.6.3.2 Reduction in conflict

A number of participants mentioned that mindfulness helped them in reducing conflict with their colleagues. One participant said that

"If anyone … it seems like my team is all the same kind of friends, like I said, if one person is angry, one person is in a bad mood, then the other person is following their emotions, then it will crash." Nurse # 7 (Hospital)

4.6.4 Team level: Factory

4.6.4.1 Better communication

The respondents reflected that mindfulness in the organization could support their team demands in terms of better communication. They reflected that MIO could support mindful speaking and mindful listening, which created mindfulness communication in the work environment.

"I have to ask, what are the needs? If I don't ask the needs, I understand it myself … Understand and communicate. If we don't communicate, it will understand each other in different directions. The ability to perceive it is not the same. Everyone knows. We expand the message like this, then it does not match at all. We must communicate. Then, asked them, do you understand? If they understand the same, it's not a problem. But if they get the message and do not understand the same way then you get it wrong." Finance #1 (Factory)

"As mentioned in the beginning that … some people may be in a variety of emotions. I must have … what do they call, it requires strategy, but because I know that what is his style, what type, how I handle him, work like this, people like this, I see it through, to the point that this person is suitable with what type of job." Production personnel #5 (Factory)

4.6.4.2 Reduction in conflict

In addition to better communication, respondents reflected that MIO could support them to have less conflict as well as less emotion in communicating between senders and receivers. The participants reflected that there was more rationality in the talk. Moreover, one participant reflected this as less rumination about others. This helped him to have less conflict with his colleagues instead of getting caught up in a rumination and fuel conflicts with his own thoughts.

"When you concentrate, you are mindful. You do not fight. You use reason to talk. You reference data, you study, you find comparable databases. Then,

go to give to him like this, like this, there is nothing alienated, everything ends with me, being the initiator." Engineering manager #1 (Factory)

"Well ... help me to not have to think about how much I do, what I do less. If I think that I do a lot, I do ... Why do people do over there? This person doesn't do this. If I don't have mindfulness, it will have a problem with ... with my colleagues. But if I have the feeling that I am happy to do, they will not do, but I am happy that I have just done this work is enough." Maintenance personnel #1 (Factory)

4.6.5 Organizational level: Hospital

4.6.5.1 Less resistance to policy

For organizational demands, the emerging theme revealed that MIO helped employees to understand the rationale of the organization's policies. MIO tended to support employees to remain calm and try to understand the reasons behind the issued policy. The participants mentioned that

"Well, that is, it is like Well, it did ... is the same, meaning it has to be like once it has a policy or something like this, I have to come to sit and consider first that what is the reason behind that. The organization has a policy or anything like that, they must have their reasons. Try to understand the reason, make me try to understand." Doctor #2 (Hospital)

"Suppose you have a policy that I like, that I do not like, like that. Sometimes if I have emotions, it is suffering, go into that situation ... It's difficult to recover, but what if I am mindful? I will know that the policy, I will look at what the policy is ordered, what it is? what to do? like that. It will help me to solve the problem, easier." Pharmacist #2 (Hospital)

4.6.5.2 Follow the policy

Individuals tended to follow the policies issued by the organization easier. Some participants mentioned that they tended to be less irritated from the policy and recognized that it needed to be done. So, they gradually followed the policies.

"Frustration, I think it helped me. if it ... what I say is like ... even though it is difficult or a lot or whatever like that. But if I have mindfulness, have

concentration with it. Everything, I view that I will not be difficult." Facilities personnel #1 (Hospital)

> *"Some of it, policy said, it views that why we need to do it. For some, I think that it's about the policy, anyhow, it needs to be done. It depends on me, how good it will be, just that. It looks like the policy is issued. It must be filtered for many levels, then it comes to me. Once I know that the policy is like this, how good I can do it, just that."* Nurse # 4 (Hospital)

4.6.6 Organizational level: Factory

4.6.6.1 Follow the policy

The respondents revealed that MIO helped them to follow the policy. They mentioned that MIO could lead them to an alternative perspective toward the policy they needed to follow. This could help them to be less resistant toward the policy issued by the organization. Also, individuals could investigate the part that the issued policy could be well-considered by the top management.

> *"Ask if the policy has come for us to follow. I must comply with the management already. Because it is a policy that I must follow. It must be better. It must already be good for them to launch the policy."* Inventory personnel #1 (Factory)

> *"Understand, from the past, in some cases, policy from the top, right, I might be against it, right. In the past, Oh, it comes again. Am I able to do this, something like this. Later, like everyone are more optimistic, as I mentioned, think more positive. Okay, the policy from the top is like this, it might be different from what we used to do. Asking that we can adapt for it, we can. I can adapt easier; I can tell you this."* Sales person #4 (Factory)

4.6.6.2 See the broader picture

The participants mentioned that MIO helped them to think about the bigger picture and the benefits of policies they needed to follow. They mentioned that they looked at the broader picture for the reason that they needed to follow the policy, as the issued policy could benefit with the organization.

> *"Will understand, understand them, understand. This is it, understand, understand that they need to come like this. In other places, they can do it,*

why can't we do it. Meaning that other companies, something like this, they can do it, and our organization, we can do it too" Sales person #4 (Factory)

"There are many policies. The policy is quite a lot because it already has its system. But now ... I also need to be mindful that the policy ... the policy that came in ... Is it reasonable? Because of the policy that came out, there must be a reason. I have to be mindful that it has reasons. It supports ISO. This one, I need to come to work with the company." Maintenance personnel #1 (Factory)

Table 4.13 Enveloping themes, theme and illustration

Enveloping theme	Themes, sub theme sample quotes	
Hospital context		**Factory context**
Enhancement psychological capital		**Enhancement psychological capital**
	Hope: "Well, there is hope. I have a way. I have tools. I have methods. I see ways to take myself or invite other people that they want to go with me with something like that. Or I have the opportunity to see many things, I have opportunity proposed to me, this gives me hope." (Nurse #16).	**Hope:** "Hope, success doesn't come from myself only. If I hope alone, it is impossible. It must be ... with everyone, like a team ... I am going to hope alone; will it be successful? It can't be. I must say that's what I want. Have to tell everyone that it will be the same way, in the same direction." (Sales person #4).
	Optimism: "For me, I think that it made me become optimistic, meaning that in the course, it mentioned mindfulness and positive thinking. But asking that can we have positive thinking immediately? It is not immediately. But when we passed, we are able to review, positive thinking that, oh, what happen has good thing inside, something like this." (Nurse #16).	**Optimism:** "Well, if I am optimistic about this, it can benefit me. I am not stressed, I do not think, I do not see that I am optimistic and everyone will be excellent. Instead, think that if I, If I am optimistic, the person who benefits is myself. I don't. I don't have to be suffered, letting go, anything like that." (Sales person #2)
	Self-efficacy: "I think I can do it. Because being with myself, Because I will know. Oh, I still have breath. I still have good things in myself. " (Nurse #1).	**Self-efficacy:** "Yes, there is. There is, like belief in ability. well, maybe I might have thought that before I couldn't do it, once I had concentration, with mindfulness, then I could do it. What it is ... is not that I can't do everything. I come to review and then think of me like. Assuming that, I have received some assignments that I think, hey, I can't do it, I. I definitely can't do it. If I think so, then it's negative, right? I come to be mindful, be mindful that I can do it. Program myself, hey, I can do it. And study any information like this ... I can do it myself" (Procurement personnel #1)
	Resilience: "So, I, I know why they talk like that or I know my emotion, why they talk like that, I know my emotion that is going …going to move to which point of what I am doing, something like that. I will look and weight benefit that will, benefit of things that I intended to do that… in the future, what will happen. This will be the point that pull me back faster." (Pharmacist #1).	**Resilience:** "Yes, yes. Everything that I mentioned here is like the cover in here. As I said I have ... encountered problems like that. I will have words to help me to regain mindfulness faster, because I think that people, I have no one to be ... Happy all the time." (Sales person #5)

Table 4.13 Enveloping themes, theme and illustration (cont.)

Enveloping theme	Themes, sub theme sample quotes
Hospital context	**Factory context**
Enhancement in Emotional intelligences	**Enhancement in Emotional intelligences**

Self-awareness: "But if I look at myself, I practice MIO, at least it ... It has one part that that makes me think, huh, it's about work. It is a matter that I have to develop, that is it allows me to be with myself a little more." (Nurse #15).	**Self-awareness:** "It makes it more like … for example, I came to know that what I am doing right now, and like when I knew it, I will work in the way that is faster." (Research and marketing planning officer)
Self-regulation: "But if I use emotion, everything will turn out badly. But if I use mindfulness, gradually control, gradually. I think everything will be better than the past." (Facilities personnel #1).	**Self-regulation:** "Control my mindfulness. Sometimes when angry, it comes first, right? I don't ... I don't think about all the reasons. When I am unmindful, I don't know what the reason is. Cause may not come from him, may come from me." (Financial officer #1)
Motivation: "Then it will make me think of ways to motivate or follow up or go to do something with." (Pharmacist #1)	**Motivation:** "But I just think that if ... If I have a clear goal, to make it go ... uh ... what I set, I can do ... improve myself, like that. Can made myself and look at the goal once I have goal, I put it. I think that many people can do it. Because I already have a confidence in myself, something like that." (Quality assurance officer #1)
Empathy: "Then being human, need to look that them being human, need to look first, it comes to their shoes and my shoes. If I were in that condition what would it be. I will look in that way, try to, let's assuming that I am angry or I will make it disappear as fast as I can. Let's make it disappear. And if assume that the subordinates do not talk to me, I will talk to them first I think like this." (Medical laboratory technologist #1).	**Empathy:** "Because in our work, it must have the next process. Because if we are thinking that, yes, this piece of work, we review, okay, good, no defects, the next person to take over our job is not to worry. They were able to take our work to continue or to do something else, no need to ... what is called? Don't have to wait to worry to recheck anything? Don't waste time." (Diagnostic officer #1)
Social skill: "when I ... before I speak, I think before I speak, so I win the hearts of friends and colleagues." (Facilities personnel #3).	**Social skills:** "As mentioned in the beginning that some people may be in a variety of emotions. I must have ... What do they call, it requires strategy, but because I know that what is his style, what type, how I handle him, work like this, people like this, I see it through, to the point that this person is suit with what type of job." (Production personnel #5)

Table 4.13 Enveloping themes, theme and illustration (cont.)

Enveloping theme	Themes, sub theme sample quotes	
Hospital context		**Factory context**
Enhancement in perceived resources		**Enhancement in perceived resources**

	Perceived resources in job level *Awareness of resources to perform the task*: When I am in a hurry, like that. I need a screwdriver. I cannot find a screwdriver. I will panic. Hey. Where is that? Then it looks like ... I will have things that I want but I cannot find it. I keep it in another place. But once, I'm in a rush, try to find it cannot find it, where is this, where is that? causing my work to be delayed. But if I am mindful I mindfully think, Hey, I keep them here, then I think first, like that. Then, once I figured out, oh it's right there. It seems to be able to help us a lot." (Facilities personnel #1). *In the present moment in the work:* " I was ... what mindfulness is aware of it consciously, like aware with the Present and in the work, like that." (Doctor #4)	**Perceived resources in job level** *Awareness in resources or equipment to perform the task* "For me, when I work with the machine, those safety, safety glove, something like that, it can help me a lot" (Inventory personnel #2) **Utilizing resources:** "Yes, it helps. Because, sometime that it won't work the way I wish, right? I will be like. Before this, I will act aggressively with emotion, something like this. But once I do this thing, I have feeling that, let's try it again, it won't waste much time, something like this. It is like, um, it works. It may take some time more, like that. And it makes thing, come back, something like that." (Sales personnel #5)
	Perceived resources in team level *Better communication:* "Well, namely, is ... is don't blame one another, not using emotion to blame and recall the past or recall that they were wrong too, no, no. So, we explain what happened and where it went wrong. We will fix it have anything like that, it's easier, faster." (Pharmacist #1) *Supporting team:* "I have a feeling that I ... I am not alone. my team is looking forward to support me. Like I have a friend who understand me." (Nurse #8).	**Perceived resources at team level** *Supporting team:* "Having fun in working, not stress, in addition, team are okay, my colleague, my line manager. If I have any problem, I can consult and ask line manager to give good advice to us." (Production personnel #2) **Supporting line manager:** "In my opinion, it does in a certain level. Assuming that what I do, the line manager assigns me a task and it's beyond my ability, I need to think consider that I have mindfulness, I can ask for advice from my supervisor, then gradually work on it." (Production personnel #1)
	Perceived resources in organization level *More understanding in the organizational policy*: "Each person is mindful, then we see that the administration or the decision of the administration 's policy, it came out of mindfulness and thought. Like we think in many angles." (Nurse #14). *Involvement of management:* "It is not a ... The organization does not govern or the executive does not govern like... Do not use emotions but use mindfulness to govern" (Nurse #14).	**Perceived resources at organizational level** *Supportive organizational policy*: "It supports. As I told you that if the organization encourages me feel ... Practicing meditation or mindfulness often, like that, the work will lead to less errors. I may be more mindful at work." (Research and marketing planning officer #1) *Involvement of management:* "The management here is kind. They are the teachers, quite a lot. I have learned many things from executives, including attitude, pathway, teaching, like that. And the executives are quite, if I have the problems, I often be a part that have question in the meeting, if I do not understand, I will raise my hand in the meeting, like that, he will answer, like that." (Customer service #1)

Table 4.13 Enveloping themes, theme and illustration (cont.)

Enveloping theme	Themes, sub theme sample quotes	
Hospital context		**Factory context**
Enhancement in perceived demands		**Enhancement in perceived demands**

Hospital context	Factory context
Perceived demands in job level	**Perceived demands at job level**
Cope better with stress from work: "If two people are not mindful, the work will not succeed here. When I have mindfulness, I will try to focus one by one, one by one." (Nurse #7).	*Prioritizing:* "Actually, it … It … It helps. Mindfulness, It will give me … Helps in matters of prioritization of work. Because if I don't line up at all, that will get this item, those will take that, something like that, it will be messy. But if I am a little mindful of what work is very important, which is less important, what you want first. I would do anything like that, something like that to prioritize your tasks. I will have to follow the steps to keep it going." (Accountant #3)
Prioritize the work: "The difficulty in work ... Is like prioritizing is better, like that. Maybe it comes for several things, if I can pull it, I will not break down with the mood. My emotion will not breakdown. I will know what problems should I solve first." (Nurse #13).	*Reduce stress:* "If you have mindfulness, the result of your work is good, you will not need to get stress." (International sales person #1)
More calm: "If I need to deal with the hassle, if I bring the MIO to use, I should recognize the breathing, right? that awareness of breath. I may be more with myself, like I said I am more with myself ... No need to respond immediately, do not have to ... it is called ... having thinking, my reaction or interaction is more systematic." (Nurse #15).	
Perceived demands at team level	**Perceived demands at team level**
*Better communication: "*I said, is making me, make me see that ... Yeah, each one of them is not the same. The basis of the mind ... The expression of each word is different. Can make me ... Yes ... Be Mindful to reflect. Looking at that with this characteristic, who they are, why they act like this, like that." (Nurse #4).	*Better communication:* "But it does not mean that I need to counter back. But I will, I must be the listener, be a listener. Sometimes we need to be the listener, listen only, listen first, and then what they are going to do, let talk. If they calm down, I start to talk. But mostly, those who are tired, they have a lot of problems, they will throw at me. I need to listen." (Production personnel #4)
Reduce in conflict: "have to come back to see for myself, tried not to blame others, that it should reduce conflict in ... can be in the team." (Nurse #12).	*Reduction in conflict: "*Well ... help me not have to think about how much I do, what I do less. If I think that I do a lot, I do ... Why do people do nothing over there? This person doesn't do this. If I don't have mindfulness, it will have a problem with ... With colleagues. But if I have the feeling that I am happy to do, they will not do, but I am happy that I have just done this work is enough." (Maintenance personnel #1)
Perceived demands in organizational level	**Perceived demands in organizational level**
Less resistance for the policy: "Well ... like, every time, if there is policy cascaded to us, there is a resistance right? We will resist in the first place. But later, after the policy is announced, I will understand, like they provide the policy like this, what is the reason, will look more in detail, like that." (Nurse #12).	*Less resistance to the policy:* "Ask if the policy has come for us to follow. I must comply with the management already. Because it is a policy that I must follow. It must be better. It must already be good for them to launch the policy." (Inventory personnel #1)
Follow the policy: "I have never felt that there will be anything complicated from the organization, but I think that if there is something complicated, it is to be mindful that I am, I do it step by step, do it one by one. it will be fine." (Nurse #8).	*Follow the policy:* "There are many policies. The policy is quite a lot because it already has its system. But now ... I also need to be mindful about the policy. The policy that came in. Is it reasonable? Because of the policy that came out, there must be a reason. I have to be mindful that it has reasons, it supports ISO. This one, I need to come to work with the company." (Maintenance personnel #1)

4.7 Enhancement of work engagement

4.7.1 Enhancement of work engagement at the hospital

4.7.1.1 See value in the work

From what emerged from the interviews, mindfulness practices helped participants to recognize value in their work. This has the potential of improving their care of patients. The participants reflected that they tended to have a positive attitude to their work. This led to better attention, such as carefully listening to patients, which helped nurses to update the condition of the patient to the doctor.

Cognition

"I see the value of the work. I think I am the gears that help patients." Nurse #9 (Hospital)

Emotion

"Oh, yes, first, umm ... maybe, maybe the work we do, could help many people, these things, when they get well and come back to me saying thank you, they get well already, like that ... I feel good, something like that." Nurse #12 (Hospital)

Behavior

"Talk to the doctor to inform that the patient is like this. Listen to the patient more. It can help patients more, okay." Nurse #9 (Hospital)

4.7.1.2 See good outcomes from the work

Mindfulness practices can support participants to see patients' issue in more rounded view and handle issues better. They could see more alternative solutions to cope with problems. After MIO training, the participants could perform their work with more attention, and provide better service quality for patients.

Cognitive

"They teach us to look at the positive side. I start to look back at body, heart, mind, patient's social, that … do they have an issue, do they have a problem. I solve it now. After that, he returned home. It makes me look at it differently which sometimes, I never look in that view." Nurse #9 (Hospital)

Emotion

"*In the work, I feel that I can do the work, how to call this, the result is productive, something like that, it's better.*" Pharmacist #2 (Hospital)

"*I felt … like on that day, I work with … a lot of happiness, feeling much better.*" Doctor #2 (Hospital)

Behavior

"*From the past, I just did the work in my role without interest in the depth of the information, and was not interested in the impact or something. Just like, I pay more attention to detail.*" Pharmacist #2 (Hospital)

4.7.2 Enhancement of work engagement in the factory

4.7.2.1 See the good outcome of work

The participants reflected that MIO could help them to be more attentive in their work. This led to an improvement in their work in terms fewer errors and improved safety. They reflected that MIO enhanced their work.

Cognitive

"*For the organization, is work. In our work, mindfulness must come first. Like. I do a procurement, right? Is. The accuracy of the documents, must be mindful in the examination. Mindfulness in communication Mindfulness in checking various things is …*" Procurement #1 (Factory)

Emotion

"*First, I do it for myself. First, I am comfortable, able to concentrate, work is not repeated, and work is clean.*" Engineering manager #1 (Factory)

Behavior

"*So, this is, is not an error at all. I have to be clear and correct. For mindfulness, can use with all things.*" Procurement #1 (Factory)

4.7.2.2 Enjoy the work

Also, respondents reflected that they enjoyed the work more. Also, the lower risk of an accident enhanced enjoyment.

Cognitive

"When I am calm, and wisdom will come, wisdom is mindfulness. Once there is mindfulness, I am able to do thing happily, have happiness ... Many people can also do it." Sales person #3 (Factory)

Emotion

"Asking that am I engaged with my work? I feel engaged, my work gets easier, more convenient, I don't have to be afraid of an accident, when it will happen. It's like I eat every day, if today I do not eat, I feel hungry and burnt stomach, then we have to come back and put some safety devices like this. This is my own understanding" Production personnel #1 (Factory)

Behavior

"Feeling more fun. Because mindfulness helps in the work a lot. It's like when I practice it, in the first place, I might feel frustrated, something like that. But once I practice mindfulness practice, and do it again and again, I feel fun in the work" Accountant #2 (Factory)

4.8 Enhancement of colleague engagement

4.8.1 Enhancement of colleague engagement at the hospital

4.8.1.1 Better relationships

The participants tended to be more mindful in their conversation including both listening and speaking. They reflected this as a careful thought on what they were going to say with their colleagues. Also, MIO participants mentioned that MIO supported them to be less judgmental of their colleagues by having a wider view for actions by colleagues. This helped them to talk or consult with one another smoothly.

Cognitive

"Because if I don't have internal security, I interpret everything that they say, or the facial expressions of those around me. I interpret it. If I interpret it negatively, it will cause my work to not run." Nurse #2 (Hospital)

Emotion

"I will look at the positive side. It will help with the perspective of the thought. Look more positive, be happy with colleagues." Nurse #5 (Hospital)

Behavior

"Yes, in the work, it affects, affects the relationship. Once there is an understanding relationship, the way we treat one another, between the officer, it will be better." Nurse #11 (Hospital)

4.8.1.2 Collaboration

Some participants mentioned that MIO helped them to consider their colleagues and how they understood their colleagues' action. This helped them to improve collaboration with other colleagues.

Cognitive

"Helping to think more, today do not take OT (overtime). I won't leave. I requested to come earlier, finish earlier. Then, we move the schedule, move the appointment. If they both take leaves, this will be bad. There is no one to replace." Doctor #2 (Hospital)

Emotion

"For example, the times I have colleagues that's good, know each other, have a good relationship to each other, smile at each other, can help each other." Physician #2 (Hospital)

Behavior

"When I asked for help, they also helped me well. It is like a good friend, that's good ... We all work together. It seems that the surrounding environment. It's in the organization's. It's like there is more collaboration. It gives helping hands." Nurse #6 (Hospital)

4.8.2 Enhancement of colleague engagement at the factory

4.8.2.1 Better communication

The participants revealed that there was an improvement in communication. MIO has enhanced both sender and receiver in the communication. In addition, a better relationship among colleagues is mentioned from the interviews.

Cognitive

"The most important thing is mindfulness in communicating with recipient and sender, right? If there is a sender and I am the receiver, receive and transfer, I am the middle me. I work in the procurement. I am the middleman in the middle to pass the work to a supplier. There must not be an error." Procurement #1 (Factory)

Emotion

"It is like more calm, not much emotion like the past. It is normal when we work with other departments. There must be an emotion. But now, I am much better." Sales person#1 (Factory)

Behavior

"The communication with my colleagues is ... sometimes ... if I have slipped from it. Sometimes it affects me. But now that I try to minimize it. Sometimes when working, if there are a lot of work, sometimes ... there will be some slips. Only if I use mindfulness, try to set it up. Before ... before speaking to all colleagues, I must ... have to set ... Beforehand, what to do to prevent conflicts between colleagues." Maintenance personnel #1 (Factory)

4.8.2.2 Collaboration

The respondents stated that MIO could support collaboration among team and between teams. They mentioned that asking for cooperation from other colleagues was easier once they had mindfulness in the organization

Cognitive

"To help remind friends .... and remind me as well. So, gradually helping each other to think, helping each other." Accountant #1 (Factory)

Emotion

"It feels like um, friends still help us or something like that, colleagues, feeling more and more good with each other." Accountant #1 (Factory)

Behavior

"Giving an order and asking for cooperation is different. If I order, no one want to do it. They may be just do it as their role, something like that. But

if I do because I ask for their help or build the relationship, something like this. It will make things like, asking for help is easier." Sales person #5 (Factory)

4.9 Enhancement of organizational engagement

4.9.1 Enhancement of organizational engagement at the hospital

4.9.1.1 Organization is the giver

MIO has provided valuable training and good things for workers. As an organization applied MIO, individuals mentioned that this created benefits to them and MIO was not something related to the performance in healthcare worker only, it also had another benefit in psychological wellbeing of the individuals.

Cognitive

"I would be grateful if the organization is not ... Does not focus on getting, only my work. They also take care and support in terms of mental agonizing." Nurse #8 (Hospital)

Emotion

"It makes me feel loved with the organization, love the organization more." Facilities personnel #3 (Hospital)

"But once I do it for a while, I engaged because the hospital gave me the opportunity for me to get training. Second, support me to have stage to do it. Third, I am engaged from ... I think I felt that I saw it and feeling proud that I did this." Nurse #16 (Hospital)

Behavior

"For me, me and the hospital, I will look at the hospital as an organization ... Is an organization that is like an organization that I must be loyal to, right? Is an organization that has benefited me and shaped me. I still have the feeling that elsewhere, will they have any training like this?" Nurse #1 (Hospital)

4.9.1.2 Brother and sister, safety climate

MIO has built the safety climate for employees in the organization to work in their role. As communication improved, so have relationships

among colleagues. Safety climate in the organization is mentioned as the environment that they work in the environment of family, brother and sister.

Cognitive

"Well, everyone, everyone in the hospital, I think that, like me living like brothers. Anything you can talk to both supervisor, and colleagues, anything." Nurse #12 (Hospital)

Emotion

"It made me feel that I worked here. It felt warm and safe, so I asked the director that I asked to stay, request to stay and after that there was a doctor. He graduated from the younger generation, I think he would like to stay with the impression here." Doctor #1 (Hospital)

Behavior

"About resignation, I do not think about it anymore, because I work in this organization, have a bond like brother and sister." Physician #1 (Hospital)

4.9.2 Enhancement of organizational engagement at the factory

4.9.2.1 As the giver

The participants reflected that MIO was something that the organization gave to them. They saw this as a positive perspective they have with the organization. Also, the benefit they receive from the MIO is not only benefit for them in their work life, it also benefits in their life.

Cognition

"A good view with the organization. That has come from the beginning, the organization has been giving from the beginning, given the opportunity to work, giving us an opportunity to think. One good thing here is, we can present what we think and then he will come to criticize our ideas whether it is good or bad. How to get the work done? Each person may not have to do in the same way." Sales person #1 (Factory)

Emotion

"I feel good with the organization. It's good. It makes me, how to say it, they teach me to have better interpersonal skills, something like that, better

communication, to think more thoroughly something like that." Production personnel #1 (Factory)

Behavior

"There are a lot, meaning that it is ... the project is good that it is organized. There was nothing like this in the past. But now that I joined the training, like they provide many benefits for me, that they come to communicate and tell the method to use mindfulness in the work. This one, it is important, because in the work, in daily life, it is important, whether at home or at work, everything must be mindfully." Production personnel #1 (Factory)

4.9.2.2 Second home

The respondents reflected that they felt that the organization was their second home. Also, there was a sense of ownership with the organization. There was a view that they would like the organization to flourish.

Cognition

"Knowing that, there is one point that the organization is like my second home. If being the first home is what do they call, is a resting place for our mind from work. But the workplace of the organization is like our second home that gives us money for everyday use, spending on things in order to stay alive." Diagnostic Office #1 (Factory)

Emotion

"Like everything belongs to me. The feeling is like everything. It is mine. That is, how can I make my business to be better, or how can it get ahead? It will have an idea of how to continue to develop our organization forward." Accountant #1 (Factory)

Behavior

"But I asked that when I am here, each day, I am at the workplace more than at home. Actually, like what Khun Pattanachai said. Asking that I really have the engagement, sometime, like me, come to work at eight thirty, but I will arrive at the company around 6.30am or 7.00am. After I finish my personal stuff, I will continue with the work. I will not wait until 8.30am and start." Inventory personnel #1 (Factory)

Table 4.14 Emerging theme of engagement in hospital context

Engagement	Emotional intelligence	Emerging themes	Cognitive flexibility Emerging theme from interviews	Emotional flexibility Emerging theme from interviews	Behavioral flexibility Emerging theme from interviews
Work engagement	Self-awareness / Self-regulation / Empathy	- See the value in the work	**See the value in the work** - I know … I know ... my target, I was not sure this is the right answer. I know that my goal, yeah ... I ... the role that I work. (Nurse #9) - Oh, yes, first, umm ... maybe, maybe the work we do, could help many people, these things, when they get well and come back to me saying thank you, they get well already. (Nurse #12)	**See the value in the work** - know that my goal, yea … I ... the role that I work. It makes me happy. (Doctor #1) - Like that, I, I, I feel good,. (Nurse #12)	**See the value in the work** - Everyone has the same hope is for our patients. I do it for patients. (Nurse #7)
		- See the Good outcome from the work	**See the Good outcome from the work** - To see the benefit or the goal of what I do, hey, it's not nonsense. (Pharmacist #1) - I take care of the patients. When I know about what am I doing ... with the patients, it makes me. The heart is there. My mind is committed. (Nurse #6) - I think our staff are more calm. Will have calmness, mindfulness, and with better solutions. (Doctor #1)	**See the Good outcome from the work** - And I … happy because I am a part of the hospital activities like that, and then when work, result of the hospital is coming out good or out as according to the plan, everyone is expecting. I am happy for that. (Doctor #2) - During the work, I will be like … my mood will be better. (Doctor #2)	**See the Good outcome from the work** - It will focus on the work that I do. That is, to think that it makes my work come out well. It's better to do with stressful things like that, hustle or something like that. (Doctor #2) - I have no mindfulness with me, flustered or something like that ... this might be an error here. (Nurse #14)

Table 4.14 Emerging theme of engagement in hospital context (cont.)

Engagement	Emotional intelligence	Emerging themes	Cognitive flexibility Emerging theme from interviews	Emotional flexibility Emerging theme from interviews	Behavioral flexibility Emerging theme from interviews
Colleague engagement	Empathy / Social skill	- Better relationship	**Better relationships** - But when I practice, it might just make me look, another view is a positive angle from negative, negative with a colleague or someone something like that. Most of it, I will look at positive side. It will help with the perspective of the thought. (Nurse #5)	**Better relationships** - Looking more positive, making happy with colleagues. (Nurse #5) - There is no, there is no negative feeling to each other. (Nurse #12)	**Better relationships** - Have a lot more relationship, we get cooler, we can talk about that, yeah, this happened. We ... We ... It was the point. The point where it was an opportunity for us to make it better. (Doctor #1)
		- Collaboration	**Collaboration** - If I have inner security with me like I said, external stimuli won't interpreted to be negative. Everyone who coordinates or I go to work with other people, therefore, if I don't interpret, therefore like ... Like they said that the radiation that went out. To live together, the radiation that goes out is the radiation that people are able to consult or what even my co-workers. so it's. so called good coordination with colleagues. (Nurse #2)	**Collaboration** - Have a lot more relationship, we get cooler, we can talk about that. (Doctor #1)	**Collaboration** - It will be smoother because today working with colleagues will be much smoother. (Facilities personnel #3) - But in the, need to say that sometime, if being alone, alone mindfulness may not that, may like could not control that much. But once I have team, and it is a team that nourish, it helps, be an important component to draw mindfulness back. (Doctor #3)

Table 4.14 Emerging theme of engagement in hospital context (cont.)

Engagement	Emotional intelligence	Emerging themes	Cognitive flexibility Emerging theme from interviews	Emotional flexibility Emerging theme from interviews	Behavioral flexibility Emerging theme from interviews
Organizational engagement	Self-awareness / Self-regulation / Motivation	- Organization is the giver	**Organization is the giver** - This hospital can give me many things. Sometimes, I couldn't imagine before, I will not think like this. I think differently, but later I use mindfulness to control myself. Yeah, I come to … This hospital to give me many things. (Facilities personnel #3) - It's like that, try to think in a good way, like that it remind me that. For me, I think, that 20 years that make me live on this, have children, have salary, raise children, take care of my parents, have house, have car, these from the salary that I get from this organization.	**Organization is the giver** - I feel that I can get benefits, get a chance, have inherited good things … the inside of me like it to grow, it's grow up. (Nurse #5)	**Organization is the giver** - I engaged because the hospital gave me the opportunity for me to get training. Second, support me to have stage to do it. Third, I am engaged from … I think I felt that I saw it and feeling proud that I did this. (Nurse #16)
		- Brother and sister, safety climate	**Brother and sister, safety climate** - About resignation, I do not think about it anymore, because I work in this organization, have a bond like brother and sister. Although some people may think that I am good already. I am already calm. But there are times when it may come off. But, this program always reminds me, Shouldn't come off, shouldn't come off, like this. (Nurse #1)	**Brother and sister, safety climate** - I feel engaged very much. It's like the director, I will not call the director, like that, Doctor dad, something like that, can call like this. He is not posing himself as the leader with distance. (Administration manager #1)	**Brother and sister, safety climate** - Having any problems, they need help, I need help, helping, right … to make the work proceed well, like that. (Nurse #13) - In working, there is monitoring, system to monitor, working is quite … in the organization is quite brothers and sisters. Able to talk, like that, like the supervisor, like the colleague, able to talk, having any problems, they need help, I need help, helping, right … to make the work proceed well, like that. (Nurse #13)

Table 4.15 Emerging theme of engagement in factory context

Engagement	Emotional intelligence	Emerging themes	Cognitive flexibility Emerging theme from interviews	Emotional flexibility Emerging theme from interviews	Behavioral flexibility Emerging theme from interviews
Work engagement	Self-awareness Self-regulation Empathy	- See the Good outcome from the work	**See the Good outcome from the work** - Between me and the work. I think it made me work easier. It is easier. I think that I fix the problem easier. From the past, that fixing the problem was complicated, for now, fix the problem is um, it is easier than the past. It is like sometime I am at a rush, too fast, not good, should hold the thought, slower just a bit. Asking that how slow it is, it may be not a minute, right? Our thinking will, umm gradually fix some of it, gradually fix, not suddenly. Sometime, fix it and it is not good. Then, come back to fix again. So, it is no benefit. Slow but sure, asking whether is it very slow, it is not very slow. It may be few minutes only. (Sales person #4)	**See the Good outcome from the work** - First, I do it for myself. First, I am comfortable, able to concentrate, work is not repeated, and work is clean. More importantly, I feel good that I have knowledge, and use knowledge, concentrate in this area. Because it is an element of living already. (Engineering manager #1)	**See the Good outcome from the work** -The work will be better, the work does not have to fix the things … I do it with concentration by processing. Of course, it must be better than I do not think of the result. The chances of missing it are small. (Engineering manager #1)
		- Enjoy the work	**Enjoy the work** - Organization engagement? I think it's good. Actually, after I wake up in the morning, I want to come to work, Maybe it's just me? I'm not sure. Other people? don't know yet. In the morning I wish to come to work. Work that I have been assigned. Make the best of it, working like I am on the job at the first day. (International sales person #1)	**Enjoy the work** - When I am calm and wisdom will occur, wisdom is mindfulness. Once there is mindfulness, I am able to do thing happily, have happiness, which happy, happiness. Many people can also do it, like. (Sales person #3)	**Enjoy the wo rk** - It is … It is good. I do not have to work a lot, something like that. I don't have to sit and check the work. That means that I do not have to adjust the previous work. When we have month end closing, something that. When we work only onetime and it is okay, it will have the good effect for the future. No need to work, no need to waste time to go back, something like this because I had mindfulness the first time. (Accountant #3)

Table 4.15 Emerging theme of engagement in factory context (cont.)

Engagement	Emotional intelligence	Emerging themes	Cognitive flexibility	Emotional flexibility	Behavioral flexibility
			Emerging theme from interviews	Emerging theme from interviews	Emerging theme from interviews
Colleague engagement	Empathy Social skill	- Better communication	**Better communication** - Such as whether someone dislikes us, as the case may be, because each person's point of view is different. (Engineering manager #1) - As mentioned in the beginning that … Some people may be in a variety of emotions. I must have. What do they call, it requires strategy, but because I know that what is his style, what type, how I handle him, work like this, people like this, I see it through, to the point that this person is suit with what type of job? (Production personnel #5)	**Better communication** - Gives me a good mood. When I am in a good mood, I talk to colleagues or talk to outsiders or people. (Research and marketing planning manager #1)	**Better communication** - The most important thing is mindfulness in communicating with recipient and sender, right? If there is a sender and I am the receiver, receive and transfer, I am the middle me. I work in the procurement. I am the middlemen in the middle to pass the work to supplier. There must not have an error. (Procurement personnel #1) - The communication with my colleagues is … Sometimes. If I have slipped from it. Sometimes it affects me. But now that I try to make it to a minimum. Sometimes when working, if there is a lot of work, there will be some slips. Only if I use mindfulness, try to set it up before speaking to all colleagues, I must. have to set. Beforehand, what to do to prevent conflicts between colleagues. (Maintenance personnel #1)
		- Collaboration	**Collaboration** - Such as whether someone dislikes us, as the case may be, because each person's point of view is different. (Engineering manager #1) - As mentioned in the beginning that … Some people may be in a variety of emotions. I must have. What do they call, it requires strategy, but because I know that what is his style, what type, how I handle him, work like this, people like this, I see it through, to the point that this person is suit with what type of job? (Production personnel #5)	**Collaboration** - To help remind friends … and remind me as well. So, gradually helping each other to think, helping each other … it feels like um, friends still help us or something like that, colleagues, is feeling more and more good to each other. (Accountant #1) - Because mindfulness will help us. Why? Like sitting and writing, right? Use your mindfulness to talk, give reasoning to each other not using emotions, right? (Director)	**Collaboration** - My colleague is that everyone is like, have unity, there is an involvement in thinking and in actions, it was like when we sit to do mindfulness meditation, we sit together. Sitting quietly together, they will have mindfulness, we sit together, then be mindful in our sitting. Then colleagues, almost everyone will be more mindful. Issues in work will be reduced, with colleagues, less conflicts. (Accountant #1) - Giving an order and asking for cooperation is different. If I order, no one will want to do it. They may be just doing it to finish as their role, something like that. But if I do because I ask for the help or build the relationship, something like this. It will make things like, asking for help is easier. (Sales person #5)

Table 4.15 Emerging theme of engagement in factory context (cont.)

Engagement	Emotional intelligence	Emerging themes	Cognitive flexibility Emerging theme from interviews	Emotional flexibility Emerging theme from interviews	Behavioral flexibility Emerging theme from interviews
Organizational engagement	Self-awareness Self-regulation Motivation	-Organization is the giver	**Organization is the giver** - A good view with the organization. That has come from the beginning, the organization has been giving from the beginning, given the opportunity to work, giving us an opportunity to think. One good thing here is, we can present what we think and then he will come to criticize our ideas whether it is good or bad. How to get the work done? Each person may not have to do it in the same way. (Sales person #1)	**Organization is the giver** - I feel good with an organization, it's good, it make me, how to say it, they teach me to have better interpersonal skills, something like that, better communication think more thoroughly something like that. (Production personnel #2) - What is it like? But I came in. They put mindfulness into it. Give me the feeling that this… give important to me (Maintenance personnel #1)	**Organization is the giver** - Then so I am OK with this place … and then they have activities … is to educate employees throughout. There is training. In one year, I can see there is a lot of training to educate staff. To give not only inside, if there is outside which is interesting, I can get petition to get the training outside. Is writing a project that you will get the training about this, to get knowledge, it opens and opportunity for me to have more knowledge. It is no barricade. (Procurement personnel #1)
		- Second home	**Second home** - This place is like the second home; I need to come here every day. When you do anything, you think of your family, think of an organization as the main thing. It's like this is my second home. (International sales person #1) - Knowing that, there is one point that the organization is like my second home. If being the first home is what do they call, is a resting place for our mind from work. But the workplace of the organization is like our second home that gives us money for everyday use, spending on things in order to stay alive. (Diagnostic #1)	**Second home** - Like everything. It belongs to me; the feeling is like everything. It is mine. That is, how can I make my business to be better, or how can it get ahead? It will have an idea of how to continue to develop our organization forward. (Accountant #1)	**Second home** - I am at the workplace more than home. Actually, like what Khun Pattanachai said. Asking that I really have the engagement. Sometime, like me, come to work at eight thirty, but I will arrive at the company around 6.30am, 7.00am. After I finish my personal stuff, I will continue with the work, will not wait until 8.30am and start. (Inventory personnel #1)

4.10 Enhancement of psychological capital

The emerging themes revealed that mindfulness positively associates with psychological capital including hope, optimism, self-efficacy, and resilience in both workplaces. Hope was repeatedly revealed from the positive outlook that an individual had toward the situation. This aligns with previous research (Malinowski & Lim, 2015; Munoz et al., 2018). For optimism, MIO helps an individual to have perspective in a more rounded view. Instead of leaping to a negative interpretation of a situation, mindfulness leads people to consciously see the situation with less negatively, and with less auto-pilot interpretation (Good et al., 2016). From what we discussed, this aligns with Fredrickson's point that mindfulness helps an individual to have positive emotions (2017). One of the interviewees reflected that mindfulness helped her to stay calm with a positive emotion and to be able to have hope and looking towards the situation with optimism. Mindfulness offers a degree of choices for people in their view of a situation. Then, mindfulness positively associates self-efficacy. It facilitates calmness with less anxiety when confronted with problems, leading to self-efficacy. This aligns with previous literature that mindfulness alleviates anxiety (Hofmann et al., 2010; Sears & Kraus, 2009). Finally, mindfulness support resilience in individuals, as they can rebound from adversity faster, and accept adversity as part of nature. Later, they can return to perform their work without sinking into their thought for too long. This aligns with the work of Glomb (Aikens et al., 2014; Glomb et al., 2011).

Being an optimist create a better experience when participants were facing the hostile situation from the work. Then, with a tendency to have less negative thinking in the individual, we would expect a tendency to maintain positive emotions in the individual. This could support them to have hope for the future. Also, with the focus and attention from mindfulness, when participants could do their work with calmness and attention, the result of the work tends to be satisfactory. Self-efficacy was gradually built from the experience participants learned from the situation which they perform with calmness. This aligned with an argument that mindfulness alleviates anxiety in the individual (Chiesa & Serretti, 2010). On resilience, mindfulness could help the individual to bring themselves back to the present and understand that adversity is a part of nature (Glomb et al., 2011). By accommodating a nonjudgmental and nonreactive

mindset, more mindful individuals have a lesser degree to react automatically to circumstances (Baron et al., 2018) by the capability to make a psychological space that makes immediate problems more like a single temporary event (Papies et al., 2012, 2015). This psychological space may remove a portion of the sting from negative stimuli, prompting more prominent psychological resilience (Hafenbrack, 2017). From what was previously discussed on psychological capital, these explain the paths in which individuals could be more engaged from an enchantment in psychological capital.

4.11 Enhancement of emotional intelligence

With self-awareness, individuals are more present, and aware of their thinking and emotions (Glomb et al., 2011), as well as of physical changes (Siegel, 2007). With the ability to respond to external the environment deliberately, mindfulness permits individuals to sense and shape their thoughts to have a greater cognitive flexibility in reaction to thoughts (Siegel, 2010). This gives them time to process the benefits and costs of reactivity to incidents. This aligns with Brown (2007b), who argues that mindfulness associated with self-regulation.

Mindfulness supports motivation to pursue a goal (Glomb et al., 2011). This aligns with the feedbacks from mindfulness participants in another study who mentioned that mindfulness intervention made them feel motivated and inspired (Islam et al., 2017). Moreover, observing negative thinking can support an individual to see other people in more rounded way and to be able to understand others' internal reality with empathy, which is crucial for healthcare workers (Beddoe & Murphy, 2004) as well as for other colleagues. This aligns with Condon (2017) and Berry (2018), who have concluded that a mindful individual tends to have empathy toward others.

Finally, MIO has created opportunities for an individual to meet other colleagues from the different functions. This cross-function training created chances for participants to know their colleagues in both work and other life aspects. This aligns with previous views that mindfulness can improve social skills (Glomb et al., 2011). Like in my work, (Islam et al., 2017) found that their participants expanded their circle of acquaintances. This supports the sense of connection among colleagues. Moreover, getting to know their colleagues from the training can lead to more collaboration.

Emotional intelligence could be an additional component in personal resources (Taylor & Millear, 2016) which play a role in the JD-R model. Apart from the main psychological resources including hope, optimism, self-efficacy and resilience, there are several other positive psychological resources with the potential to be included in psychological capital (Luthans & Youssef-Morgan, 2017). Furthermore, empathy from one individual can foster social support, which plays a role of resources at the team level. These resources can help employees in coping with challenges that previously were overwhelming. Practitioners come to understand themselves better through the first three components of emotional intelligence: self-awareness, self-regulation, and motivation. These may be anticipated from mindfulness practitioners (Beitel et al., 2005; Himelstein et al., 2012; Levesque & Brown, 2007).

Empathy and social skills showed inter-personal perspective between individuals and others. Empathy and social skills benefit not only the individuals who practice the mindfulness, but also everyone they come in contact with, including patients in the hospital and customers and suppliers at the factory, not to mention practitioners' home life.

4.12 Enhancement of work engagement

4.12.1 Enhancement of work engagement in the hospital context

For work engagement, an enhancement in psychological capital, emotional intelligence, perceived resources and alleviation in perceived demands supported individuals to see the value in their work and see its good outcomes. With mindfulness, the individuals could be still and recall their value in their work. This prevents rumination with negative thoughts, which might lead to negative emotions and adverse actions. This aligns with a previous study which stated that mindfulness practices reduce negative emotion (Long & Christian, 2015). This self-regulation helps people from reacting to external circumstance aversively. Finally, empathy helps healthcare workers in their work as empathy is one of the elements which helped the individuals to understand the patients' feelings. This allows better service to patients.

MIO supports the employee to have more attention and be present in the work. This helps them to see the value in their work and deliver a satisfactory outcome in their performance. The emerging theme that employees see the value in their work aligns with what Kahn (1990) proposed that meaningfulness is one of the psychological conditions for engagement. In addition, we would like to highlight elements of emotional intelligence which had a potential to enhance work engagement. These are self-awareness, self-regulation, and empathy.

4.12.2 Enhancement of work engagement in the factory context

Emerging from a greater level of attention, improvement in problem solving supports an individual to have a good outcome, which gradually improves the employee's mindset. From attentive work, reduces errors. Later, an individual can observe an improvement in the quality as well as safety in their work thanks to mindfulness. Besides, MIO can support how an individual copes with challenges, and enables problem-solving with broader thinking (Fredrickson, 1998). Being mindful helps a person to stay calm (Bashford, 2012) and prioritize the work that they need to do (Agazzi et al., 2020).

Instead of getting overwhelmed by numerous assigned tasks which could lead to stress and blockage in their thoughts, mindfulness enables people to solve their problems, as mindfulness enhances problem solving and facilitates handling uncertainty (Baas et al., 2014; Jacobs & Blustein, 2008; Lebuda et al., 2016; Ostafin & Kassman, 2012).This is where practitioners gradually gain more self-efficacy through observing and enhancing the quality of their work. Overall, this positively associate with how the individuals engage with their work as they can be in the present in their work and handle it with a sense of satisfaction.

Mindfulness supports employees to stay calm and gradually cope with job demands. Too many job demands can lead to overwhelm and build up stress. In addition, handling a number of the assigned works at the same time with a mix of worrying and anxiety can worsen the situation. This disorganized state may even lead to a freeze state in which the person cannot find any solution and fails to react to the situation properly. In one reflection from an interviewee, he/she described the situation of an overwhelm

in the job demands as "Kang Ho" (mixed soup in which the ingredients cannot be separated).

One of the emerging themes is an improvement in the capability to solve problems they need to cope with in their work. Instead of getting overwhelmed, mindfulness enables people to address issues calmly and rationally, since mindfulness enhances problem solving and facilitates handling uncertainty (Baas et al., 2014; Jacobs & Blustein, 2008; Lebuda et al., 2016; Ostafin & Kassman, 2012). As the individuals could view the problem on hand with a positive emotion, they could broaden their cognitive capability to solve it. In addition, MIO enhances attention to work, and this reduces error and improves safety. Moreover, by gradually improving confidence in problem-solving, self-efficacy was progressively built up. This is the positive foundation on which they can gradually build more psychological capital in their personal resources.

Besides, resources at the team level can enhance coping with challenges in their work demands. As there might be some challenges in the new assigned task, supportive colleague and supportive line manager are the fruitful source for advice. As the workers perceived that they could ask for advice from their team mate or their supervisor, this built hope, which in turn improved coping. That is, resources at the team level enhanced individual psychological capital.

Mindfulness has been proposed to lessen the impact of our past on interpreting and acting in the present. This is reflected in depictions of mindfulness as including "beginner's mind" or "bare attention" (Gunaratana, 2010). Since this restructuring will in general show up out of nowhere in consciousness, it can be an insight (an "Aha" moment). A mindfulness practitioner is expected to expand cognitive view toward problems. Interview analysis revealed that mindfulness often enhanced problem solving confidence, as for Forjan et al., (2020). Verbal-theoretical analysis permits us to explore a world that can be a "blooming, buzzing confusion" (James, 1890). Moreover, employee overload can lead to burnout if the individuals do not have the proper strategy to cope with those challenges. Mindfulness has been of value in this situation, both in the hospital and in the factory setting through increasing self-efficacy. Interacting multiple benefits of mindfulness were reported: being in the present, work satisfaction, and improved well-being.

4.13 Enhancement of colleague engagement

4.13.1 Enhancement of colleague engagement in the hospital context

Colleague engagement can be built up from improved relationships as well as collaboration. An emerging theme revealed that MIO helped respondents to have less conflict and less emotion in communication with their team. This aligns with polyvagal theory, which proposes that parasympathetic activation in the state of mindfulness can enhance social relationships (Porges, 2011). Thus, MIO can enhance emotional intelligence, which consists of self-awareness, self-regulation, motivation, empathy and social skills (Goleman, 1996).

An enhancement in empathy, social skill developed from emotional intelligence as well as an opportunity to get to know colleagues from cross functions opens an opportunity to collaborate. Mindful communication among employee positively associate with collaboration thanks to improving relationships and reduced emotion or conflict communications. This aligns with the view that mindfulness practitioners are expected to have good listening skills (Baer et al., 2006b; Brown & Ryan, 2003). As the individuals become aware of their body sensations, physical reactions such as heart rate (Krygier et al., 2013) or blood pressure, they can calm down. This aligns with a previous study, which showed that mindfulness meditation lowered the heart rate (Azam et al., 2015).

Besides, optimism also played a role in respondents' perception of their colleagues, removing judgmental reactions. At the team level, mindfulness was explained as a way to enhance group effectiveness by means of enhanced personal relationships (Ihl et al., 2020). With better communication and better relationships, this bloomed into collaboration among colleagues. Often, beyond this, it led to improved team resources such as mutual help and consultation.

Despite the fact that the employees may be assigned to difficult tasks, they tended to believe that their support system helped them to cope. In addition, collaboration built up a safety climate, which led to engagement. This aligns with Dollard and Bakker (2010) whose study presented that psychological safety climate was a predictor of the engagement.

4.13.2 Enhancement of colleague engagement in the factory context

For colleague engagement, the emerging theme revealed that mindfulness enhanced better communication and collaboration. In addition, the emerging theme came from mindfulness communication. This was aligned with a study that mindfulness intervention can support deep listening (Shonin et al., 2014). Findings from the interviews aligned with theoretical view from Glomb (2011) that mindfulness practices can alleviate automatic responses or reactive responses toward others, as the individuals became more mindful and aware of their thinking and emotions. Mindfulness practice generated a time lag between impulse and action, leading to calm, rational reactions to others. This could prevent the conflicts and gave the path to be nourished between sender and receiver in the communication.

Mindfulness practices also enhanced interpersonal relationships with others through being self-aware and nonjudgmental. This led to better relationships. For colleague engagement, mindfulness practices enhance social engagement. This aligns with a theoretical view from Porges (2011), who explained that mindfulness practices lead to less activity from the amygdala, which tends to be activated into a fight mode when a person evaluates the external circumstance as a threat. This is far less likely for a person who is able to avoid judging others.

In addition, the concept of decentering encouraged people who practiced mindfulness to become observers in a situation, and brought them back one step (Garland et al., 2009). This allowed them to be less threated by another person. As the individuals reflected, communication between team members and line manager were improved, resulting in a better relationship, which in turn improved collaboration. That is, MIO positively associate with team-level engagement. Moreover, collaboration at the team level often resulted in hope at the individual level when facing a challenging task.

4.14 Enhancement of organizational engagement

4.14.1 Enhancement of organizational engagement at the hospital and the factory

Exactly as at the hospital, MIO supported engagement in organizational level through a social exchange mechanism, and the establishment of a safe climate at factory. MIO was instrumental in motivating employees to put effort into benefiting the organization. As pointed out in social exchange theory (Saks, 2006), when workers perceive good care from their employer, they want to give back and care for the organization in turn. This is well illustrated by many statements from case study respondents. If assigned the extra tasks they were "willing to go the extra mile." One of the reasons for input of more work was previous collaboration as part of colleague engagement.

MIO can influence organizational engagement in two ways. First, as already described, is the social exchange: the provision of MIO, and changes in organizational culture it resulted in, improved employee perception of the organization. Also, practicing mindfulness improved employee wellbeing, and again, this motivated them to give back to the company.

Second, MIO built up the safety climate in the organization, which the employees described as "belonging to a family" in the workplace. This aligns with Kahn's (1990) condition of psychological safety as one of the psychological conditions for engagement. Mindful communication among the team built up a collaboration and a safety climate in the organization. In addition, commitment of top management was essential for a successful implementation of mindfulness in the organization (Krishnan, 2021).

From what we have discussed, MIO has revealed its potential to enhance work engagement, colleague engagement and organizational engagement through both an integrative path as well as through each path including job level, team level and organizational level. Partly, this aligns with what Saks (2006) presented, that the sources of engagement at different levels can come from different sources. At the same time, the sources from the different levels form complex interactions in enhancing engagement in the employees.

In conclusion, mindfulness practiced by employees through the introduction of MIO is positively associated with engagement by increasing personal resources including psychological capital and emotional intelligence. Similarly, this mindfulness practice positively supports perceptions of the organization at all three levels of job, team, and organization. Third, both MIO's influence on organizational culture and individual mindfulness positively supported employees' perception of the demands imposed on them. Altogether, this supported work engagement, colleague engagement, and organizational engagement.

In comparison between the hospital case and the factory case, both cases revealed the common theme of an enhancement in engagement at different levels including work engagement, colleague engagement, and employee engagement from MIO. This aligned with the finding Liu that mindfulness is associated with work engagement (S. Liu et al., 2020). Both cases revealed that MIO enhanced personal resources in the individual including psychological capital and emotional intelligence. Especially, emotional intelligence could play a vital role in the work of healthcare workers who have work roles related to patients who have sickness or patients' relatives who face stress from health conditions of relatives. Consequently, enhancement in empathy from MIO could play its part in enhancing engagement, particularly at the work engagement level in healthcare workers. In contrast, enhancement in self-awareness could play an essential part in the factory workers as they require to operate heavy machines in their work conditions.

In addition, another common theme revealed for both cases is the self-efficacy and safety climate can support employees when they confront new or challenging work demands. From reflections from interviewees, individuals are willing to take on the challenge of new work demands and have the willingness to learn new things in their work as the organization has a safety climate that supports them to learn and work on new challenges. They tend to be afraid of failure from taking the challenge of new work demands. Also, there is a concept that they can get support from team members or their supervisors. Besides, resilience and supporting line managers could be the resources for them to cope with challenges and create the potential to develop a growth mindset when they work with new work demands.

With work engagement, interviewees revealed that it supported them to come up with how they work with their assigned tasks. As they are assigned new tasks such as organizing the running event for the hospital or working on a continuous improvement project in the factory context. Engaging in their work help them to have job crafting by modifying their resources to thrive towards work goals.

From a theoretical point of view, this study provides insight into the mechanisms by which MIO positively associates with engagement at all levels. Two contributions can be identified. First, emerging themes helped us to understand the mechanism by which MIO positively associate with engagement at all three levels. Second, this integrated model sets out the benefits of mindfulness in the occupational setting in a comprehensive way. Analysis of the semi-structured interviews derived from the JD-R model yielded emerging themes elucidating this.

In summary, this research provided an insight into how mindfulness in the organization has benefits at all levels, and has led to the development of a comprehensive model derived from the JD-R model. In addition, the emerging themes indicate opportunities for future research.
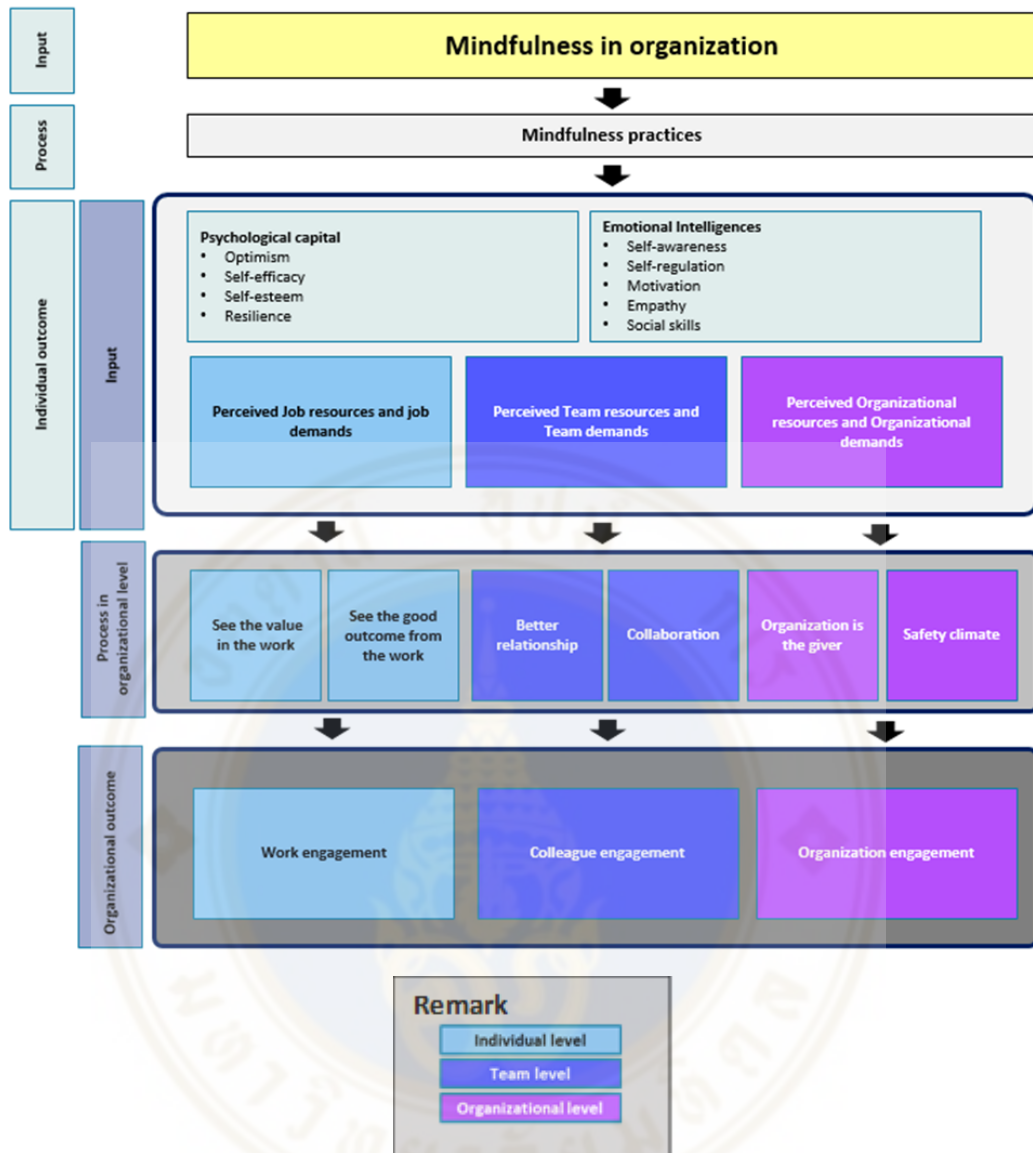
Figure 4.5 Chart shows the process of how mindfulness in organization positively associate with employee engagement in hospital context
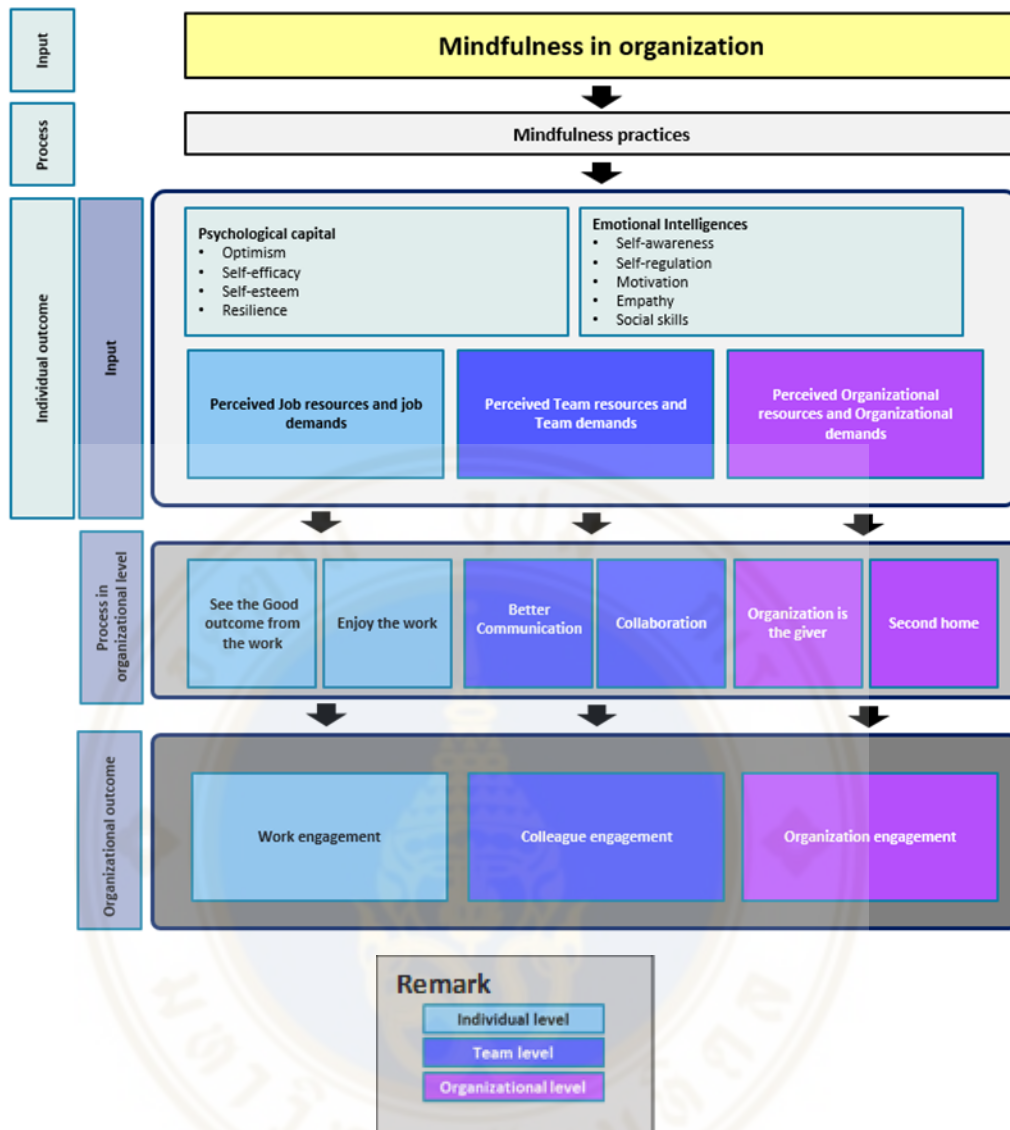
Figure 4.6 Chart shows the process of how mindfulness in organization positively associate with employee engagement in factory context

According to the Figure 4.5 and 4.6, MIO is an input in the process with the potential to affect five elements in individuals including psychological capital, emotional intelligence, perceived resources and perceived demands at the job level, team level and organizational level. Both the hospital context and the factory context showed the alignments in the emerging themes for personal resources, emotional intelligence, perceived resources and perceived demands as well as engagement including colleague engagement and organizational engagement. One difference between the two settings is that the emerging theme for work engagement at the hospital

was the value they were the intrinsic reward of being able to help patients, while at the factory, the analogous benefit was the satisfaction of doing good work.

In conclusion, MIO as an input pass through a process in individual, team, organization level and result in work engagement, colleague engagement and organizational engagement.
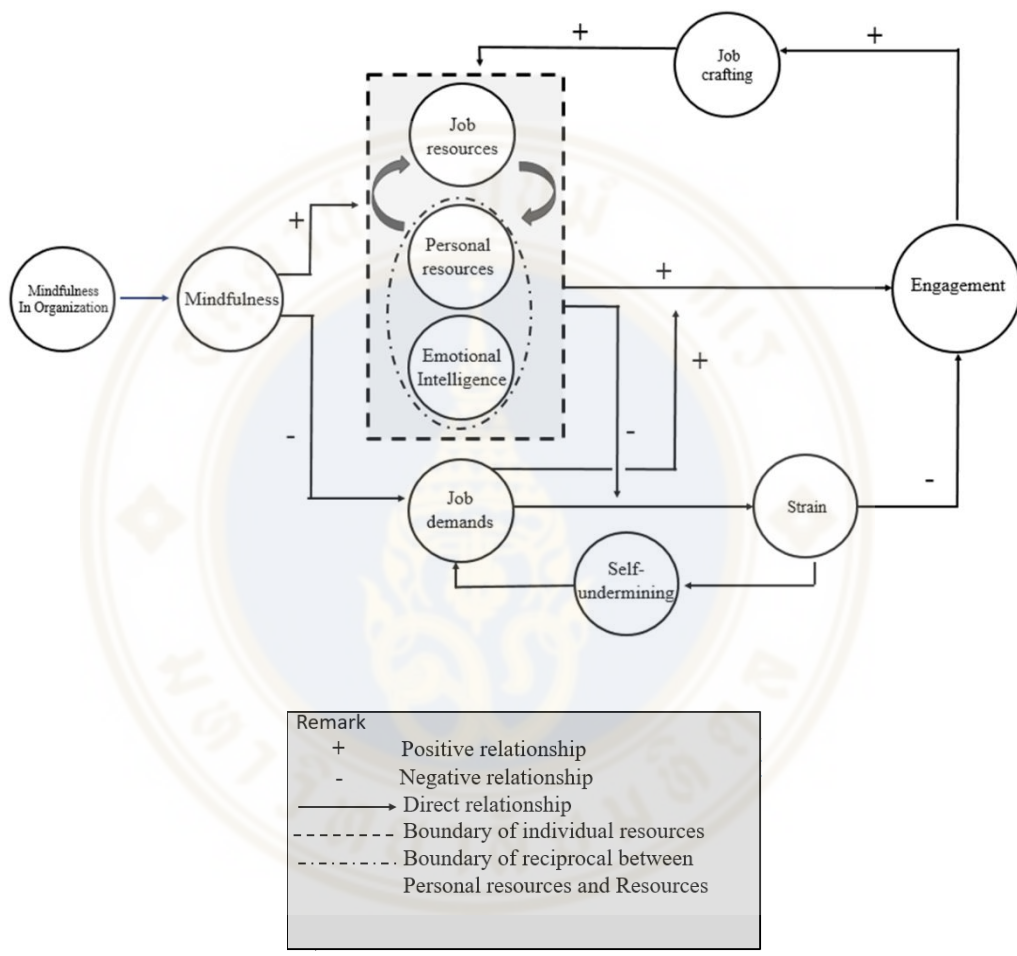
Figure 4.7 Final emerging resultant framework

From what we have discussed, we propose the final emerging resultant framework depicted in Figure 5.3 It shows that MIO can enhance mindfulness in individuals. This in turn positively associate with personal resources including psychological capital (hope, optimism, self-efficacy and resilience) and emotional intelligence (self-awareness, self-regulation, motivation, empathy, and social skill). From an improvement in perceived resources, we also expect that a resource caravan (Hobfoll, 2002) can be built up in individuals. In addition, a reciprocal relationship

between work resources and personal resources can be expected (Xanthopoulou et al., 2009). Enhancement in a supportive team in team resources supports self-efficacy in individuals as well as hope. Social support is a mechanism to support self-efficacy (Bandura, 1997). This framework implies that motivation appears earlier in personal resources and it may not be the outcome of the JD-R model. Initially, motivation is proposed as an outcome of personal resources and work resources (Bakker & Demerouti, 2017). In the findings, motivation emerged as part of emotional intelligence in personal resources.

CHAPTER V
DISCUSSION AND CONCLUSIONS

The quantitative qualitative findings presented in the previous part have answered the two main research questions: 1) Does Mindfulness in Organizations (MIO) influence employee engagement in healthcare workers and factory workers in Thailand? And 2) How does Mindfulness in Organizations (MIO) influence employee engagement in healthcare workers and factory workers in Thailand according to the JD-R model? The first research question was answered by the quantitative analysis of the survey. The second research question was answered by the qualitative findings. In the following section, discussion from the findings will be discussed.

Does Mindfulness in Organizations (MIO) influence employee engagement in healthcare workers and factory workers in Thailand?

Mindfulness in organizations has a positive association with employee engagement at different levels in both the hospital and the factory context. First, MIO has been shown to have a positive association with employee engagement in both workplaces. Statistical analysis of survey results supports Ha1 in the hospital and Ha2 in the factory context respectively. In individuals, mindfulness showed a positive influence on employee engagement. This research finding aligned with previous research from Leroy (2013), which found that mindfulness has a positive relationship with work engagement.

How does Mindfulness in Organizations (MIO) influence employee engagement in healthcare workers and factory workers in Thailand according to the JD-R model?

Emerging themes revealed from the in-depth interviews will be discussed in the following sections. This will answer the second research question on how MIO influences engagement at different levels. From the in-depth interviews, we can see that mindfulness enhanced emotional intelligence, psychological capital and engagement at different levels including work engagement, colleague engagement, and organizational

engagement. For work engagement, MIO had a potential to positively associate with resources (Malinowski & Lim, 2015) and perceived job resources (Hutcherson et al., 2008b) from positive outlook towards the situation (Glomb et al., 2011; Malinowski & Lim, 2015).

For colleague engagement, as MIO had a potential to enhances social behavior (Condon, 2017). This aligns with previous literature that mindfulness supports interpersonal relations and social connection (Adair et al., 2018; Berry et al., 2018; Hutcherson et al., 2008b). The results also support previous literature showing that mindfulness can enhance empathy in the individuals (Berry et al., 2018). Glomb (2011) proposed that mindfulness enhances behavioral flexibility. Individuals become conscious in their reactions and the response toward others (Good et al., 2016). This has been confirmed in the present study.

For organization engagement, this aligns with social exchange theory (Cropanzano & Mitchell, 2005), which proposes that individuals tend to contribute back to the organization from organizational resources they received. Since MIO has a potential to enhance perceived organizational support (M. D. Klatt et al., 2009), MIO should positively associate with organizational engagement, which was the case in the current study. This aligns with previous literature (Saks, 2006). In addition, this supported Saks's finding (2006) that different antecedents can positively associate with engagement at different levels. In summary, the survey results showed that mindfulness facilitates engagement, colleague engagement, and organizational engagement.

5.6 Significant theoretical contribution

This study contributes to the existing body of knowledge in three areas. First, current research provided an integrative comprehension of how MIO may have a positive association with work engagement, colleague engagement, and organizational engagement. Multidisciplinary perspectives including mindfulness, and engagement, as well as supportive theoretical foundations from neuroscience and psychology help us to understand how MIO positively associates with engagement at different levels. This may be the first empirical study that integrates the theoretical concept of mindfulness and the JD-R model.

Second, the resultant framework extended personal resources to include emotional intelligence, which could play a vital role in health-care services as well as in collaboration with colleagues in any setting.

Third is the demonstration of complex multilevel positive interactions. Enhanced components at one level often support another level and interdependently build up an integrative effect for the individual, the team, and the organization. The findings showed separate trails of how MIO positively associates with engagement at different levels. At the same time, the trail of how mindfulness positively associates with the three levels of engagement is holistic and interdependent. Furthermore, an interesting finding from this research suggests that mindfulness in the organization could have the potential to benefit not only employees in Thailand, which is a predominantly Buddhism society but also employees in other countries. Findings showed that the mechanism could work in several components in the JD-R model without relying heavily on the Buddhism society context.

In summary, this study is consistent with previous research that mindfulness can enhance emotional regulation (Feldman et al., 2007), and work engagement in an occupational setting (Leroy et al., 2013), as well as social connectedness (Adair et al., 2018) for mindfulness practitioners. Beyond an academic contribution, this gives an opportunity for both researcher and practitioner to apply MIO as one of the tools to enhance engagement in an organization.

5.7 Managerial implications

Organizations can use mindfulness to enhance work engagement, colleague engagement and organizational engagement. Implementing mindfulness has the potential of facilitating multiple levels of engagement. Mindfulness benefits employees at the individual level, team level and organizational level. Consequently, the organization can expect better work output, fewer errors, better safety, and more harmony in the workplace.

Finally, involvement of the executive management is crucial to gain benefits. Implementing mindfulness in the entire organization requires participation

from everyone, especially executives who realize the importance of mindfulness and engagement.

5.8 Limitations and future research

Although this research provides an understanding of the mechanism of how mindfulness influences engagement, it does have certain limitations. First, the model derived is based mostly on qualitative data from the face to face interviews, and now needs to be tested through quantitative means. Second, this study was conducted with two organizations, one public hospital and one factory in Thailand. Findings from this study should not be generalized for the entire population in Thailand. Third, this research was conducted in Thailand, a culture familiar with the Buddhist concept of mindfulness. It needs to be replicated in cultures less influenced by Buddhism.
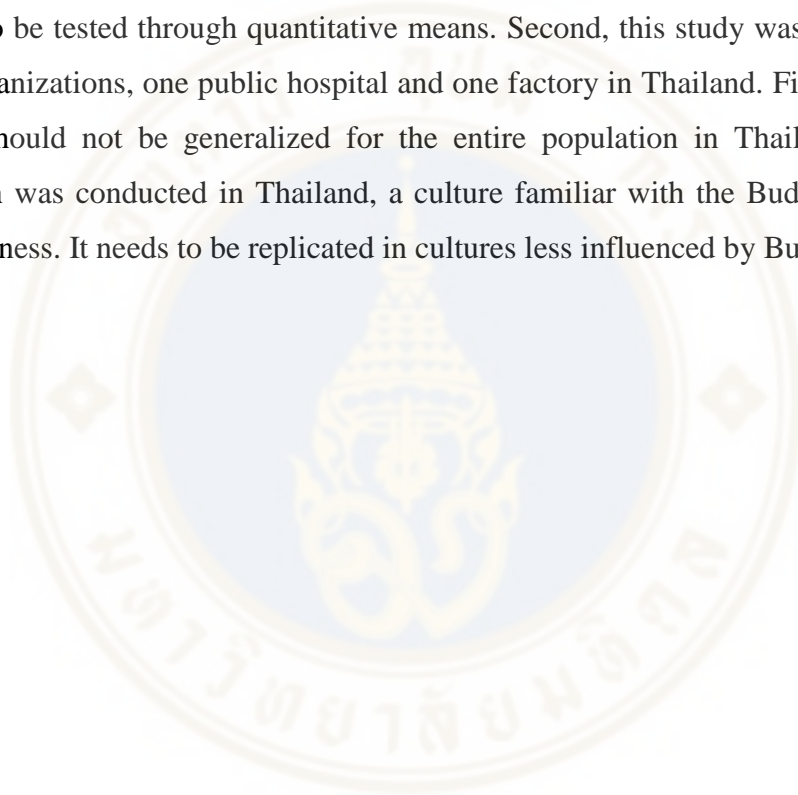
List of Abbreviation

Abbreviation	Definition
MIO	Mindfulness in Organization
JD-R model	Job demands-resources model
CFA	Confirmatory factor analysis
SEM	Structural equation modeling
B.C.E.	Before the Christian Era
USA	United States of America
MBSR	Mindfulness Based Stress Reduction
MBCT	Mindfulness-based cognitive therapy
CLBP	Chronic low back pain
EEG	Electroencephalographic
fMRI	Functional magnetic resonance imaging
rACC	Rostral anterior cingulate cortex
ACC	Anterior cingulate cortex
RCT	Randomized controlled preliminary trial
PNS	Parasympathetic nervous system
RSA	Respiratory sinus arrhythmia
MBIs	Mindfulness-based interventions
MBSH	Mindfulness-based self-help
MBI-GS	Maslach burnout inventory – general survey
UWES	Utrecht Work Engagement Scale
Q12	Gallup's engagement survey
LLC	Limited Liability Company
PsyCap	Psychological capital
MBTC	Mindfulness-based therapy and counseling
WHO	World Health Organization
E-R theory	Effort-Recovery theory
CORs	Conservation of resources theory
UK	United Kingdom
FFMQ	Five Facet Mindfulness Questionnaire
OCBI	Organization Citizenship Behavior – individuals
CAQDAS	Computer Assisted Qualitative Data Analysis
IPSR-IRB	Institute for Population and Social Research

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APPENDICES

Appendix A: English Questionnaire

Dear all personnel,

      The questionnaire is attached here with as part of the research. On the use of Mindfulness in organizations to increase employee engagement: a case study in Factory workers and nurses of two organizations in Thailand, organized by Ph.D. student, Kriengkrai Kumprang, College of Management, Mahidol University.

      This research aims to understand the mechanism of mindfulness in organizations which affects the engagement of personnel in factory workers and nurses from case studies of two organizations in Thailand. This questionnaire expresses feelings, ideas and decisions which there is no right or wrong.

      The researcher would like to ask for your cooperation in filling out the following questionnaire. Your response to this survey is voluntary. It takes about 10-15 minutes to answer the survey. Your answers will be kept confidential. The data will be analyzed as aggregated in research only. and there will be no information that might reflect your name or status. Because your answer is very important. Therefore, I would like to ask you to answer questions based on real opinions and answer all questions for data integrity.

      If you have any questions, please contact researcher Kriengkrai Kumprang, College of Management, Mahidol University, Mobile number 089-890-3358 and thank you all for taking the time to provide information on this occasion.

Sincerely yours,

Kriengkrai Kumprang

Questionnaire

Note: Please respond to the following questions by placing a check mark (X) in the answer box that corresponds to your response and/or fill in the blank where indicated.

1. Gender

    ( ) 1. Female   ( ) 2. Male

2. Age   ( ) 1. Less than 20 Year   ( ) 2. 20 – 30 Year

                ( ) 3. 31 – 40 Year   ( ) 4. 41 – 50 Year

                ( ) 5. Over 50 Year

3. Year of experience in the organization

    ( ) 1. Less than 1 Year   ( ) 2. 1-5 Year

    ( ) 3. 6 – 10 Year   ( ) 4. 11-15 Year

    ( ) 5. Over 15 Year

4. Highest education

    ( ) 1. Grade 4   ( ) 2. Grade 6

    ( ) 3. Grade 9   ( ) 4. Grade 12

    ( ) 5. Bachelor degree   ( ) 6. Master degree

    ( ) 7. Ph.D.   ( ) 8. Certification, (Please specify) …

5. Year of experience

    ( ) 1. Less than 1 Year   ( ) 2. 1 – 5 Year

    ( ) 3. 6 – 10 Year   ( ) 4. 11-15 Year

    ( ) 5. More than 15 Year

6. Position

    ( ) 1. Employee/Nurse   ( ) 2. Supervisor

    ( ) 3. Management level

7. Religion

    ( ) 1. Buddhism   ( ) 2. Islam

    ( ) 3. Christian   ( ) 4. Others (Please specify) …………

    ( ) 5. None

8. Did you participate in Mindfulness in the organization program?

( ) 1. Yes   ( ) 2. No

No.	Statement	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly agree (5)
	The following items describe statements about mindfulness in organization, please indicate your agree or disagreement with the following statements by put a (X) sign for your response					
	Mindfulness in Organization (MIO intervention)					
1	You dedicate your energy into your work.					
2	You devote your time to helping others who have problems at work.					
3	You are proud to be in this organization.					
	Mindfulness in Organization (MIO intervention)					
4	I frequently join activities from mindfulness in organization (MIO) intervention					
5	I practices mindfulness activities introduced by mindfulness in organization (MIO) intervention					
6	I received benefit from mindfulness in organization (MIO) intervention					
	Mindfulness					
7	With mindfulness in organization (MIO), I pay attention to sensations, such as the wind in my hair or sun on my face.					
8	With mindfulness in organization (MIO), I have trouble thinking of the right words to express how I feel about things.					
9	With mindfulness in organization (MIO), I find myself doing things without paying attention.					
10	With mindfulness in organization (MIO), I think some of my emotions are bad or inappropriate and I shouldn't feel them.					
11	With mindfulness in organization (MIO), when I have distressing thoughts or images I am able just to notice them without reacting					
	Personal resources					
12	With mindfulness, I can think of many ways to reach my current goals.					

No.	Statement	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly agree (5)
The following items describe statements about mindfulness in organization, please indicate your agree or disagreement with the following statements by put a (X) sign for your response						
13	With mindfulness, the future holds a lot of good in store for me.					
14	With mindfulness, when I'm in a difficult situation, I can usually find my way out of it.					
15	With mindfulness, I can remain calm when facing difficulties because I can rely on my coping abilities					
	Resources					
16	With mindfulness, it support me to have more resources from my job to perform my job					
17	With mindfulness, it support me to have more resources in my team to perform my job					
18	With mindfulness, it support me to have more resources in my organization to perform my job					
19	With personal resources, it support me to have more resources from my job to perform my job					
20	With personal resources, it support me to have more resources in my team to perform my job					
21	With personal resources, it support me to have more resources in my organization to perform my job					
	Demands					
22	With mindfulness, it helps me to cope with demands from my job to perform in my job					
23	With mindfulness, it helps me to cope with demands from my team to perform in my job					
24	With mindfulness, it helps me to cope with demands from my organization to perform in my job					
25	With personal resources, it helps me to cope with demands from my job to perform in my job					

No.	Statement	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly agree (5)
	The following items describe statements about mindfulness in organization, please indicate your agree or disagreement with the following statements by put a (X) sign for your response					
26	With personal resources, it helps me to cope with demands from my team to perform in my job					
27	With personal resources, it helps me to cope with demands from my organization to perform in my job					
	Engagement					
28	With mindfulness in organization (MIO), Performing my job is so absorbing that I forget about everything else.					
29	With mindfulness in organization (MIO), I really put my heart into my job.					
30	With mindfulness in organization (MIO), I exert a lot of energy performing my job.					
31	With mindfulness in organization (MIO), Willingly give your time to help others who have work-related problems					
32	With mindfulness in organization (MIO), being a member of this organization is very captivating.					

Appendix B: Thai Questionnaire

เรียน   บุคลากรทุกท่าน

แบบสอบถามที่แนบมานี้เพื่อเป็นส่วนหนึ่งของงานวิจัย เรื่องการใช้โปรแกรมสติในองค์กรเพื่อเพิ่มความ
ผูกพันของบุคลากร:กรณีศึกษาใน พนักงานโรงงานและพยาบาล ของสององค์กรในประเทศไทย ซึ่งจัดทำโดย
นักศึกษา ปริญญาเอก เกรียงไกร ขำปรางค์ วิทยาลัยการจัดการ มหาวิทยาลัยมหิดล

การวิจัยครั้งนี้มีจุดมุ่งหมายในการศึกษา   เพื่อให้เข้าใจถึงกลไกของโปรแกรมสติในองค์กร   ซึ่งมีผลต่อ
ความผูกพันของบุคลากร   ของพนักงานโรงงานและพยาบาล   จากกรณีศึกษาของสององค์กรในประเทศไทย
แบบสอบถามนี้เป็นการแสดงความรู้สึก ความคิดและการตัดสินใจที่แตกต่างกัน ซึ่งไม่มีข้อใดถูกหรือผิด

ทางผู้วิจัยจึงอยากจะขอความร่วมมือจากท่านในการกรอกแบบสอบถามตามนี้   การตอบแบบสำรวจนี้
ขึ้นอยู่กับความสมัครใจของท่าน โดยใช้เวลาในการตอบแบบสำรวจประมาณ 10-15 นาที คำตอบของท่านจะถูก
เก็บรักษาเป็น**ความลับ** ข้อมูลจะถูกวิเคราะห์เป็นผลรวมในงานวิจัยเท่านั้น และจะ**ไม่มีข้อมูลใดที่อาจแสดงถึงชื่อ
หรือสถานภาพของท่าน**   เนื่องจากคำตอบของท่านมีความสำคัญยิ่ง   จึงขอความกรุณาท่านตอบคำถามตามความ
คิดเห็นที่แท้จริงและตอบคำถามทุกๆข้อ เพื่อความสมบูรณ์ของข้อมูล

หากท่านมีข้อสงสัยประการใดกรุณาติดต่อผู้วิจัย   เกรียงไกร   ขำปรางค์   วิทยาลัยการจัดการ
มหาวิทยาลัยมหิดล เบอร์โทรศัพท์มือถือ 089-890-3358 และขอขอบพระคุณทุกท่านที่กรุณาเสียสละเวลาเพื่อให้
ข้อมูลมา ณ โอกาสนี้

ขอแสดงความนับถือ

เกรียงไกร ขำปรางค์

แบบสอบถาม

คำชี้แจง: โปรดทำเครื่องหมาย X ลงใน ( ) หน้าข้อความที่เป็นจริงเกี่ยวกับตัวท่าน

1. เพศ   ( ) 1. หญิง   ( ) 2. ชาย

2. อายุ   ( ) 1. น้อยกว่า 20 ปี   ( ) 2. 20 - 30 ปี

                    ( ) 3. 31-40 ปี   ( ) 4. 41 - 50 ปี   ( ) 5. มากกว่า 50 ปี

3. ประสบการณ์ในการทำงานในองค์กรนี้

                    ( ) 1. น้อยกว่า 1 ปี   ( ) 2. 1 - 5 ปี

                    ( ) 3. 6 - 10 ปี   ( ) 4. 11 - 15 ปี

                    ( ) 5. มากกว่า 15 ปี

4. การศึกษาสูงสุด

                    ( ) 1. ประถมศึกษาปีที่ 4   ( ) 2. ประถมศึกษาปีที่ 6

                    ( ) 3. มัธยมศึกษาปีที่ 3   ( ) 4. มัธยมศึกษาปีที่ 6

                    ( ) 5. ปริญญาตรี   ( ) 6. ปริญญาโท

                    ( ) 7. ปริญญาเอก   ( ) 8. วุฒิบัตร อื่นๆ (โปรดระบุ)…………………

5. ประสบการณ์การทำงาน

                    ( ) 1. น้อยกว่า 1 ปี   ( ) 2. 1 – 5 ปี

                    ( ) 3. 6 – 10 ปี   ( ) 4. 11-15 ปี

                    ( ) 5. มากกว่า15 ปี

6. ตำแหน่งงาน

                    ( ) 1. พนักงาน/พยาบาล   ( ) 2. หัวหน้างาน

                    ( ) 3. ผู้บริหาร

7. ศาสนา

                    ( ) 1. พุทธ   ( ) 2. อิสลาม

                    ( ) 3. คริสต์   ( ) 4. ศาสนาอื่นๆ (โปรดระบุ)…………………

                    ( ) 5. ไม่มี

8. ท่านได้มีส่วนเข้าร่วมใน โปรแกรมสติในองค์กร (MIO)

                    ( ) 1. มีส่วนเข้าร่วม   ( ) 2. ไม่มีส่วนเข้าร่วม

ข้อ	คำถาม	ไม่เห็นด้วยอย่างยิ่ง (1)	ไม่เห็นด้วย (2)	เฉยๆ ปานกลาง (3)	เห็นด้วย (4)	เห็นด้วยอย่างยิ่ง (5)
ข้อความต่อไปนี้อธิบายถึง การใช้โปรแกรมสติในองค์กร (Mindfulness in Organization: MIO) โปรดทำเครื่องหมาย (X) ลงในช่องที่ตรงกับความคิดเห็นของท่านมากที่สุดเพียงคำตอบเดียว					
	ความผูกพันของบุคลากร					
1	ท่านทุ่มเทพลังงานในการทำงานของท่าน					
2	ท่านสละเวลาของท่านเพื่อช่วยเหลือผู้อื่นที่มีปัญหาเกี่ยวกับงาน					
3	ท่านอยู่ในองค์กรนี้อย่างภาคภูมิใจ					
	โปรแกรมสติในองค์กร (Mindfulness in Organization: MIO)					
4	ท่านเข้าร่วมกิจกรรมโปรแกรมสติในองค์กร (MIO) อย่างสม่ำเสมอ					
5	ท่านได้มีการทำกิจกรรมการฝึกสติที่ได้รับการแนะนำจากโปรแกรมสติในองค์กร (MIO) ด้วยตนเองอย่างสม่ำเสมอ					
6	ท่านได้รับประโยชน์จากโปรแกรมสติในองค์กร (MIO)					
	สติ					
7	จากการเข้าร่วมโปรแกรมสติในองค์กร (MIO) ท่านรับรู้ถึงความรู้สึกทางกายของท่านมากขึ้น ตัวอย่างเช่น ลมที่สัมผัสเส้นผม หรือแสงแดดที่กระทบบนใบหน้าของท่าน					
8	จากการเข้าร่วมโปรแกรมสติในองค์กร (MIO) ท่านเข้าใจความรู้สึกของตนเองและสามารถอธิบายออกมาได้ง่าย					
9	จากการเข้าร่วมโปรแกรมสติในองค์กร (MIO) ท่านให้ความสนใจกับสิ่งที่ตนเองทำอยู่มากขึ้น					
10	จากการเข้าร่วมโปรแกรมสติในองค์กร (MIO) ท่านรับรู้ความรู้สึกของท่านที่เกิดขึ้นไม่ว่าจะเป็นความรู้สึกที่ดี หรือไม่ดี โดยไม่ตัดสิน					

ข้อ	คำถาม	ไม่เห็นด้วยอย่างยิ่ง (1)	ไม่เห็นด้วย (2)	เฉยๆ/ปานกลาง (3)	เห็นด้วย (4)	เห็นด้วยอย่างยิ่ง (5)
11	จากการเข้าร่วมโปรแกรมสติในองค์กร (MIO) เมื่อท่านมีความคิดที่เป็นทุกข์หรือนึกถึงภาพที่เป็นทุกข์ ท่านสามารถสังเกตเห็นได้โดยไม่รู้สึกทุกข์ไปด้วย					
	ทัศนคติที่ดีส่วนบุคคล					
12	จากการมีสติ ท่านสามารถคิดหาหนทางได้หลายทาง เพื่อให้เป้าหมายที่ท่านมีในปัจจุบันสำเร็จ					
13	จากการมีสติ ท่านเชื่อว่าเรื่องราวในอนาคตจะออกมาในทางที่ดีสำหรับท่าน					
14	จากการมีสติ เมื่อท่านอยู่ในเหตุการณ์ที่ยากลำบาก ท่านมักจะหาทางออกได้เสมอ					
15	จากการมีสติ ท่านสามารถสงบสติอารมณ์เมื่อเผชิญกับความยากลำบาก เพราะว่าท่านเชื่อในความสามารถที่ท่านมีอยู่เพื่อรับมือกับปัญหาของท่าน					
	สิ่งที่สนับสนุนการทำงาน					
16	การมีสติ ทำให้ท่านมีมุมมองที่ดีต่อสิ่งที่สนับสนุนการทำงานของท่าน					
17	การมีสติ ทำให้ท่านมีมุมมองที่ดีต่อสิ่งที่**ทีม** (หัวหน้าหรือเพื่อนร่วมงาน) สนับสนุนการทำงานของท่าน					
18	การมีสติ ทำให้ท่านมีมุมมองที่ดีต่อสิ่งที่**องค์กร**สนับสนุนการทำงานของท่าน					
19	ทัศนคติที่ดีส่วนบุคคล (*ตัวอย่างเช่น ความหวัง การมองโลกในแง่ดี ความสามารถที่จะฟื้นตัว เมื่อตกอยู่ในสถานการณ์ที่ยากลำบาก หรือ ความเชื่อในความสามารถของตนเอง*) ทำให้ท่านมีมุมมองที่ดีต่อสิ่งที่สนับสนุนการทำงานของท่าน					

ข้อ	คำถาม	เห็นด้วยอย่างยิ่ง (1)	ไม่เห็นด้วย (2)	ไม่แน่ใจ (3)	เห็นด้วย (4)	เห็นด้วยอย่างยิ่ง (5)
20	ทัศนคติที่ดีส่วนบุคคล ทำให้ท่านมีมุมมองที่ดีต่อสิ่งที่**ทีม** (หัวหน้าหรือเพื่อนร่วมงาน) สนับสนุนการทำงานของท่าน					
21	ทัศนคติที่ดีส่วนบุคคล ทำให้ท่านมีมุมมองที่ดีต่อสิ่งที่**องค์กร** สนับสนุนการทำงานของท่าน					
	ความยุ่งยากในการทำงาน					
22	การมีสติ ช่วยให้ท่านรับมือกับ**ความยุ่งยากในงาน**ได้ดีขึ้น					
23	การมีสติ ช่วยให้ท่านรับมือกับ**ความยุ่งยากจากทีม** (หัวหน้าหรือเพื่อนร่วมงาน) ในการทำงานได้ดีขึ้น					
24	การมีสติ ช่วยให้ท่านรับมือกับ ความยุ่งยากจากองค์กรในการทำงาน ได้ดีขึ้น					
25	ทัศนคติที่ดีส่วนบุคคล *(ตัวอย่างเช่น ความหวัง การมองโลกในแง่ดี ความสามารถที่จะฟื้นตัว เมื่อตกอยู่ในสถานการณ์ที่ยากลำบาก หรือ ความเชื่อในความสามารถของตนเอง)* ช่วยให้ท่านรับมือกับ**ความยุ่งยากในงาน**ได้ดีขึ้น					
26	ทัศนคติที่ดีส่วนบุคคล ช่วยให้ท่านรับมือกับ**ความยุ่งยากจากทีม** (หัวหน้าหรือเพื่อนร่วมงาน) ในการทำงานได้ดีขึ้น					
27	ทัศนคติที่ดีส่วนบุคคล ช่วยให้ท่านรับมือกับความยุ่งยากจากองค์กรในการทำงานได้ดีขึ้น					
	ความผูกพันของบุคลากร					
28	การเข้าร่วมโปรแกรมสติในองค์กร (MIO) ทำให้ท่านจดจ่อกับงานของท่านจนลืมเรื่องอื่นๆไปขณะที่ทำงาน					
29	การเข้าร่วมโปรแกรมสติในองค์กร (MIO) ทำให้ท่านตั้งใจและใส่ใจในการทำงานของท่าน					

ข้อ	คำถาม	ไม่เห็นด้วยอย่างยิ่ง (1)	ไม่เห็นด้วย (2)	ไม่แน่ใจ/ปานกลาง (3)	เห็นด้วย (4)	เห็นด้วยอย่างยิ่ง (5)
30	การเข้าร่วมโปรแกรมสติในองค์กร (MIO) ทำให้ท่านทุ่มเทพลังงานในการทำงานของท่าน					
31	การเข้าร่วมโปรแกรมสติในองค์กร (MIO) ทำให้ท่านสละเวลาของท่านเพื่อช่วยเหลือผู้อื่นที่มีปัญหาเกี่ยวกับงาน					
32	การเข้าร่วมโปรแกรมสติในองค์กร (MIO) ทำให้ท่านอยู่ในองค์กรนี้อย่างภาคภูมิใจ					