

Article

Mechanisms of Organizational Mindfulness on Employee Well-Being and Engagement: A Multi-Level Analysis

Kriengkrai Kumprang  and Suparak Suriyankietkaew * 

College of Management, Mahidol University, Bangkok 10400, Thailand; kriengkrai.kum@student.mahidol.ac.th

* Correspondence: suparak.sur@mahidol.ac.th

Abstract: This article investigates the currently limited multidisciplinary research front in emerging areas of mindfulness practice, employee well-being, and engagement. This evidence-based study aims to explore multifaceted mechanisms on how an organizational mindfulness development may affect well-being and engagement at multiple levels. This study employed a qualitative case study research design using Nvivo 12 software for a data analysis. The job demand–resource (JD-R) model was adopted as a theoretical framework. In-depth interview data were collected from diverse multi-stakeholders, including management and employees, in a Thai manufacturing company. Our findings uncover that the organizational mindfulness program can improve employee’s psychological capital, emotional intelligence, and perceived resources, and alleviate perceived demands. The result implies the importance of the mindfulness practice since it can support well-being and engagement at multiple levels, specifically from individual work and a collective team of colleagues, and toward enhanced organizational performance. Our proposed emergent model also advances the JD-R theoretical framework, by adding mindfulness and emotional intelligence as essential components to enhance engagements at three levels (i.e., work, team, and organizational engagement). Overall, the result critically provides the theoretical development and insightful managerial implications for professional and organizational development.

Keywords: mindfulness; engagement; emotional intelligence; employee well-being; organizational behavior; human capital development; organizational development



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1. Introduction

Modern leaders and managers are on a quest for contemporary management development programs that can help their organizations cope with the disrupted VUCA world due to volatile changes, uncertainty, complexity, and adversity. Mindfulness training and practices have become fashionable mantras among popular management development programs (Kornfield 2012; Shahbaz and Parker 2022; Zhang et al. 2021). Over the past decades, mindfulness has grown in significance among academics and practitioners. In the literature, over 15,764 articles on mindfulness were published between 1916 and 2019 (Lee et al. 2021). Today, its popularity extends in diverse mindfulness applications in the workplace (Good et al. 2016; Reitz et al. 2020). Research suggests that mindfulness can help boost positive outcomes at work (Condon 2017; Charoensukmongkol and Puyod 2022), including stress reduction (Jamieson and Tuckey 2017; Querstret et al. 2020), prosocial behavior (Condon 2017), increased well-being (Brown and Ryan 2003; Jobbehdar Nourafkan et al. 2023), and better decision-making and productivity (Shapiro et al. 2015). Additionally, numerous studies suggest that mindfulness has positive effects and outcomes on engagement to varying degrees (e.g., Coe and Salanova 2018; Leroy et al. 2013; Reb et al. 2015).

In recent years, the examination and integration of mindfulness practices in work settings have garnered increasing interest (Reina et al. 2022). Yet, the literature (i.e., Glomb et al. 2011; Michaelsen et al. 2023; Vonderlin et al. 2020) suggested that studies on positive effects and impacts of mindfulness on engagement in organizations were quite piecemeal

and underdeveloped. Existing knowledge and understanding about how mindfulness can improve employee engagement, psychological capital, and emotional intelligence or well-being in practice at diverse levels of actual organizational settings is currently limited. Importantly, research on investigating mechanisms of mindfulness in influencing employee engagement, using a job demand–resource model (JD-R model) (Bakker and Demerouti 2017), is still lacking. Therefore, this paper hopes to bridge the addressed gaps. And, our research question focuses on investigating how an organizational mindfulness development may affect well-being and engagement at multiple levels. Overall, our study aims to expand the existing knowledge as well as provide theoretical advancement in the developing field toward leading-edge management development.

2. Literature Review

2.1. Mindfulness

Originally, mindfulness is rooted in Buddhist contemplative traditions such as Vipassana and Mahayana (Kornfield 2012). Brown and Ryan (2003, p. 212) defined mindfulness as “a receptive attention to and awareness of present moment events and experience”. Mindfulness contains three key components. The first is being in the now, at the present moment (Shankland et al. 2021). Second, mindfulness includes awareness of the internal and external environment (Brown and Ryan 2003; Dane 2011; Glomb et al. 2011). Third, mindfulness involves non-judgmental awareness of circumstances (Brown et al. 2007).

Mindfulness was initially introduced to clinical patients. In early clinical studies, empirical evidence suggested that it could lessen stress (Chin et al. 2019; Kabat-Zinn 1990) and enhance well-being (Auty et al. 2017; Brown and Ryan 2003). Mindfulness is also found to have several benefits. Mindfulness affects psychological functions that can cause a person to actualize, detaching from their thoughts and feelings (Grecucci et al. 2015). In brain imaging studies, mindfulness also enhances emotional flexibility and supports amygdala function to increase the ability to control emotional responses (Creswell et al. 2008) and emotional regulation (Carroll et al. 2022). It also demonstrates the ability to enhance behavioral flexibility through a better response to an environmental stimulus and reaction to external circumstances (Glomb et al. 2011). It is also related to prosocial behavior (Condon 2017). And, it supports cognitive flexibility (Zheng et al. 2023). Mindful awareness enables people to consciously observe and shape one’s thoughts and have increased cognitive ability flexibility in response to thoughts (Motevalli et al. 2023).

In recent times, mindfulness has emerged as a fast-developing area in supporting organizational studies. In professional settings, mindfulness has become instrumental in diverse organizational development. Capability of mindfulness to lessen stress has played a bridging role and its implications in mindfulness practices have become prevalent in firms (Aikens et al. 2014). Past research showed that mindful individuals tended to be more conscious of their behaviors toward others from verbal communication to attention to other non-verbal expressions such as gaze and body language (Ucok 2006). Nowadays, mindfulness is recognized for its positive associations with attention to task performance (Cheng et al. 2023) and problem solving skills (Forjan et al. 2020). Various studies highlight its importance in supporting positive psychological effects, such as the alleviation of anxiety (Chiesa and Serretti 2010), stress management (Brendel et al. 2016; Klatt et al. 2009), prosocial behavior (Condon 2017), and resilience (Liu et al. 2022). Research by Wongpiromsanti (2017) also indicates that sharing mindfulness practices with teams should help promote mindfulness practices as part of the organizational culture. In contemporary corporate culture, mindfulness has transformed into a form of capitalist spirituality, presenting itself as a structured yet limited approach to self-help, placing the burden of well-being firmly on the individual within the workplace (Purser 2018).

Secular and scientific communities have predominantly portrayed mindfulness as a neutral practice with universal advantages. However, this representation conceals how specific ideologies and values shape mindfulness to serve particular interests rather than the general public good. The literature argue that the general view of its universality

may need to be cautioned since mindfulness is not a cure-all medicine (Walsh 2016). Critics argue that framing stress as an issue to be managed through mindfulness shifts the focus away from systemic factors contributing to workplace stress, placing the burden of well-being solely on individuals (Becker 2013). A recent systematic review of 58,592 adults from non-clinical samples found that mindfulness is positively associated with various performance outcomes, such as job satisfaction and interpersonal relations (Zhang et al. 2021). However, the full extent of positive impacts of mindfulness on engagement remains undisclosed due to the scarcity of research in this area (Vonderlin et al. 2020). Research addressing how mindfulness affects multi-level workplaces, from individual, group, to organizational levels, is also lacking (Shahbaz and Parker 2022). A clear understanding of the mechanisms of mindfulness implementation in occupational settings is also needed. Moreover, the current literature lacks insights into the specific mechanisms through which mindfulness practices are implemented and experienced within business and organizational environments. Overall, our paper aims to bridge the literature gaps in this underdeveloped field by investigating mechanisms of how mindfulness can impact individual, team, and workplace well-being in organizations.

2.2. Employee Engagement

Worldwide, engagement of employees in organizations has become one of the strategic priorities on a management agenda (Sun and Bunchapattanasakda 2019). Many of the world's most influential companies view employee engagement efforts as the key to increased productivity and improved customer satisfaction (Turner 2020b). It also enhances employee willingness to go the extra mile for organizations (Schaufeli 2012; Turner 2020a). Kahn (1990) further highlights the importance of engagement as the essential element for positive psychological conditions and well-being (Ivtzan et al. 2016). Engaged employees are cognitively, emotionally, and behaviorally engaged in their work roles with social intelligence and excellence (Goleman 2013). Empirical research also indicates that employee engagement has significant impact on employee performance (Anitha 2014), productivity (Kwarteng et al. 2024), and employee loyalty (Nguyen and Ha 2023). Despite recent meta-analyses confirming the positive influence of engagement on job performance and absenteeism (Neuber et al. 2022), there is a scarcity of new instruments available for organizations to enhance employee engagement levels. Furthermore, Saks (2022) emphasizes how human resource management (HRM) and organizational care support employees' well-being, leading to higher engagement. Consequently, this underscores the critical importance of integrating well-being development into human resource development (HRD) initiatives to enhance employee engagement effectively.

One of the most widely accepted and well-established theories of engagement is the job demand–resource model (JD-R model) (Bakker and Demerouti 2017). JD-R has become the fundamental framework for engagement studies (Radic et al. 2020). The model helps categorize the preconditions of engagement into three core classifications: job resources, job demands, and personal resources. In theory, job resources are typically the most significant predictors of motivation and engagement (Bakker and Demerouti 2007; Bakker et al. 2023). Job resources represent the physical, psychological, social, or organizational aspects of work that contribute to a worker's ability to perform a job (Bakker et al. 2014). Job resources are typically the most significant predictors of work engagement (Bakker et al. 2023), which support job performance (Demerouti and Cropanzano 2010). Individuals with more resources are better positioned for resource gains, according to the conservation of resources theory (COR) (Hobfoll 2002). On the other hand, the job demands may manifest as physical, psychological, social, or organizational components that interfere with an employee's job performance (Bakker et al. 2023). Job demands are typically the most significant predictors of adverse physical and psychological outcomes like weariness, psychosomatic health problems, burnouts, and strain injury (Bakker et al. 2003; Hakanen et al. 2006). Moreover, personal resources refer to people's perceptions of their capacity to successfully influence and control their environments, and they are connected to resiliency (Hartmann et al. 2020;

Hobfoll et al. 2003). Personal resources or psychological capital (PsyCap) consists of hope, optimism, self-efficacy, and resilience (Bakker et al. 2023). Additionally, a longitudinal study revealed that over time, the relationship between personal resources and job resources and engagement at work was reciprocal (Xanthopoulou et al. 2009). As a result, personal resources and work engagement predicted personal resources, which in turn predicted job resources. The JD-R model also includes five related components, specifically strain, motivation, job crafting, self-undermining, and job performance, as shown in Figure 1. Figure 1 illustrates that job demands and job resources are the catalysts for two mostly independent processes, namely a motivational process and a health impairment process toward job performance. In practice, the model can be used as a tool for human resource management (Bakker and Demerouti 2007).

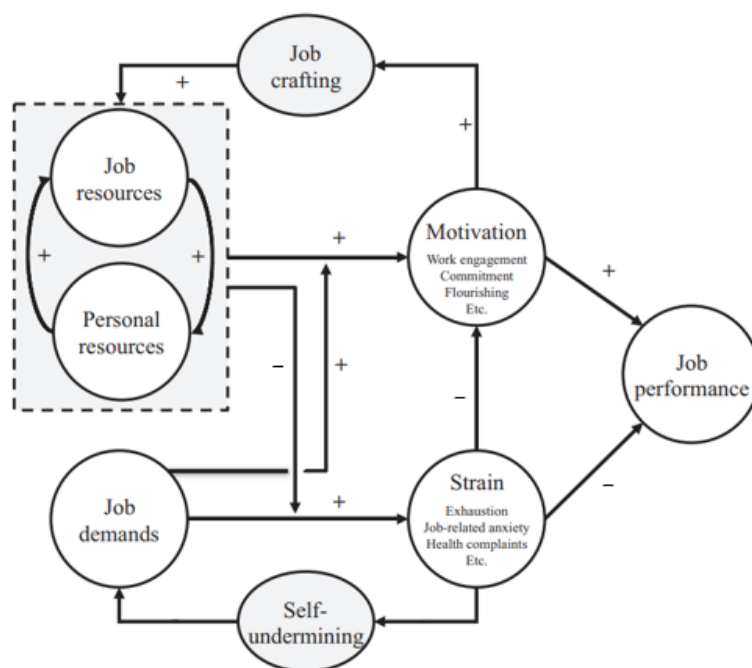


Figure 1. Existing job demands-resources model (Bakker and Demerouti 2017, p. 275).

Employees that participate in self-undermining, according to Bakker and Costa (2014), are probably under a lot of stress at work (e.g., chronic exhaustion, health complaints). As a result, they lack effective communication, commit more errors, and spark more disputes, adding to the already demanding job requirements. Higher job demands make workers less capable of controlling their own emotions and more prone to confrontation at work. The result of high levels of job strain is self-defeating behavior, which perpetuates a vicious cycle of high job demands and strain (see Figure 1). Bakker and Wang (2020) found through a series of experiments that self-undermining was positively correlated with emotional and work demands, suggesting that employees who cause stress, confusion, and conflict increase job demands. However, there are also some areas where the JD-R model does not fully capture the scale of engagement. Saks (2006) further suggested to include an organizational engagement. The difference between work engagement and organization engagement is the extent to which engagement moves from work only in work engagement to engagement with the organization.

2.3. Mindfulness and Engagement

Mindfulness has several benefits on enhanced well-being and engagement in various applications and contexts. Table 1 shows the past research that is related to mindfulness, engagement, and various outcomes in the workplace. The table suggests a literature gap concerning the currently limited understanding of mindfulness and employee engagement in actual workplace settings.

Table 1. Summary of Previous Research on Mindfulness and Engagement.

No.	Author	Article	Quantitative Research	Qualitative Research	Related to Occupational Setting	Work Engagement	Employee Engagement	Number of Respondents	Key Result
1	(Aikens et al. 2014)	Mindfulness Goes to Work Impact of an On-Line Workplace Intervention	✓			✓		89	Mindfulness is positively related to work engagement, vigor, and resiliency, but is negatively related to stress.
2	(Dane and Brummel 2014)	Examining workplace mindfulness and its relations to job performance and turnover intention	✓		✓	✓		102	Mindfulness can improve job performance and reduced turnover intention, but it is not significant regarding work engagement.
3	(Glomb et al. 2011)	Mindfulness at Work		✓	✓			20	Mindfulness can enhance employee performance and well-being
4	(Klatt et al. 2009)	Effects of Low-Dose Mindfulness-Based Stress Reduction (MBSR-ld) on Working Adults	✓		✓			24	Mindfulness can reduce perceived stress.
5	(Klatt et al. 2015)	Mindfulness in Motion (MIM): An Onsite Mindfulness Based Intervention (MBI) for Chronically High Stress Work Environments to Increase Resiliency and Work Engagement	✓		✓	✓		34	Mindfulness can increase resilience and work engagement.
6	(Leroy et al. 2013)	Mindfulness, authentic functioning, and work engagement: A growth modeling approach	✓			✓		90	Mindfulness is positively related with work engagement.
7	(Malinowski and Lim 2015)	Mindfulness at work: Positive affect, hope, and optimism mediate the relationship between dispositional mindfulness, work engagement and well-being	✓			✓		291	Mindfulness can increase work engagement, hope, and optimism.
8	(Michaelsen et al. 2023)	Mindfulness-Based and Mindfulness-Informed Interventions at the Workplace: A Systematic Review and Meta-Regression Analysis of RCTs	✓		✓	✓		9375	Mindfulness interventions are generally effective and serve as a valuable means to improve various aspects of employee health.
9	(Neuber et al. 2022)	How Work Engagement Relates to Performance and Absenteeism: A Meta-Analysis	✓		✓	✓		139,182	Work engagement is positively associated with future task performance and negatively associated with future absenteeism.
10	(Vonderlin et al. 2020)	Mindfulness-Based Programs in the Workplace: A Meta-Analysis of Randomized Controlled Trials.	✓		✓			5161	It is evident that mindfulness-based programs can effectively promote good health and well-being of employees across various occupational settings.
11	(Zainal and Newman 2024)	Mindfulness Enhances Cognitive Functioning: A Meta-Analysis of 111 Randomized Controlled Trials.	✓					9538	Mindfulness-based interventions (MBIs) can consistently produce small-to-moderate, yet practically significant, effects on global cognition and six cognitive subdomains.

In organizations, mindfulness may increase engagement based on the conservation of resources (COR) theory (Hobfoll et al. 2003). Mindfulness could enhance personal resources and psychological capital in the JD-R model and lead to work engagement (Xanthopoulou et al. 2009).

The previous literature indicates that various positive mindfulness outcomes are linked to engagement in organizations. The literature highlights that it can help reduce stress (Chang et al. 2022), improve optimism (Malinowski and Lim 2015), enhance well-being (Bränström et al. 2010), increase employees' attention (Zainal and Newman 2024), strengthen prosocial behavior (Berry et al. 2018), and increase safety behavior at work (Liu et al. 2023). Mindfulness is also associated with developing psychological capital, such as hope and optimism (Malinowski and Lim 2015), self-efficacy (Chang et al. 2004; Katan et al. 2019), and resilience (Michaelsen et al. 2023). A meta-analysis comprising 111 randomized controlled trials indicates that mindfulness-based interventions (MBIs) have the potential to yield positive effects on cognitive domains such as attention, executive function, and working memory accuracy (Zainal and Newman 2024). Consequently, this underscores the potential of integrating mindfulness practices within workplace settings as a means to enhance attention and foster present moment engagement in work tasks.

Moreover, mindfulness can foster workplace social resources through better social connections (Adair et al. 2018) and alleviate stress in job demands (González-Palau and Medrano 2022). Mindfulness is suggested to be an essential way to increase engagement at work (Liu et al. 2020). A recent meta-analysis underscores the multifaceted impact of mindfulness on workplace outcomes (Michaelsen et al. 2023). The meta-analysis suggests significant improvement across various observed domains, such as stress, well-being, and mental health, yet the analysis reveals subtleties in the effectiveness of the mindfulness intervention. For instance, while stress reduction benefits from the intervention were notably large, outcomes such as relaxation and self-efficacy demonstrated smaller or no significant effects. However, the mindfulness intervention in the workplace seems to yield satisfactory results and more studies into its differential impacts on employee well-being and engagement are still needed.

Furthermore, Saks (2006, 2019) proposed that a supportive work environment, job characteristics, and fairness in the organization can support both work engagement and organizational engagement. Saks's study also suggested that job satisfaction, organizational engagement, and reduced turnover intention could be consequences of work engagement. Table 2 summarizes how mindfulness can enhance employee engagement through the components of the JD-R model. Although the literature described several precursors of work engagement and organizational engagement, research on the JD-R model has generally focused on the individual level (Bakker and Demerouti 2017). In fact, engagement can be classified into three levels: (1) work or job engagement, (2) team engagement in a team, and (3) organizational engagement.

Firstly, at the individual level, work or job engagement refers to one's willingness to devote physical, cognitive, and emotional resources solely to one's work (Christian et al. 2011). Secondly, at the collective group or team level, team engagement refers to a willingness to physically, cognitively, and emotionally commit resources beyond one's work and activities to teams and colleagues (i.e., team engagement). Thirdly, at the organizational level, all employees at diverse levels are expected to physically, cognitively, and emotionally commit to support organizational works and activities to enhance organizational engagement (Saks and Gruman 2014).

Many companies offer mindfulness practices and training programs in their organizations (Antanaitis 2015; Michaelsen et al. 2023), but little is known about its effects on employee engagement. Mindfulness is not a panacea for all circumstances unless one thoroughly understands the potential implications for the organization (Walsh 2016). Therefore, it is vital for this study to explore how mindfulness can support management development and enhance employee engagement to maximize organizational performance.

Table 2. Enhancing Employee Engagement with Mindfulness through the JD-R Model Components.

JD-R Component	Factors	Potential Path and Rationale	Psychological Conditions (Kahn 1990)
Personal resources	Hope (Strohmaier et al. 2022)	Mindfulness practice can enhance an individual's state of hope (Strohmaier et al. 2022).	
	Optimism (Hashemi et al. 2020)	Mindfulness decreases the focus on negative thinking and improves optimism (Hashemi et al. 2020).	
	Self-efficacy (Taylor et al. 2022)	Individuals can advance self-efficacy through the development of mindfulness practices (Taylor et al. 2022).	Psychological availability (Kahn 1990)
	Resilience (Liu et al. 2022)	Resilience is likely to be more prominent in mindful individuals since they tend to engage less in rumination and habitual worrying (Liu et al. 2022).	
Resources	Autonomy (Ryan et al. 2021)	There is a positive association between autonomy and mindfulness (Ryan et al. 2021).	Meaningfulness (Kahn 1990)
	Social support (Padhy et al. 2021)	The study results demonstrated a positive correlation between mindfulness and social support (Padhy et al. 2021).	Psychological safety (Kahn 1990)
	Psychological safety climate (Lawrie et al. 2018)	Mindful work could enhance psychological safety climate (Lawrie et al. 2018).	Psychological safety (Kahn 1990)
Demands	Perceived stress (Querstret et al. 2020)	Mindfulness practices lessen stress (Querstret et al. 2020) and can alleviate perceived job demands.	

2.4. Mindfulness in Organizations (MIO) Development Program

Mindfulness in organizations (MIO) is a specially designed program that applies mindfulness practices for organizational training and development. Its goal centers on the creation of consciousness that does not focus on religious principles. It intends to enhance positive psychology for everyone in organizations and have practical implications for everyday work and life. It is designed to raise awareness of mindfulness by aligning individual values with organizational values. In Thailand, MIO is developed to introduce mindfulness practices to management and employees within an organization (Wongpiromsanti 2017). By 2019, a total of 18 organizations, including private organizations and hospitals, had joined the MIO program with support from the Ministry of Public Health in Thailand.

The MIO program embraces mindfulness practices, body scans, mindful communication, and consciously creative discussion in a series of workshops. The program is a two-day training and development course. It consists of a series of workshops in three sessions as follows: Firstly, it focuses on training participants in mindfulness meditation that allows individual participants to practice mindful breathing exercises with clear thoughts and no judgment. Secondly, the program allows the participants to practice positive thinking and mindful communication among teams to be careful/mindful when thinking and communicating among one another. In the last part, it aims to enhance mindfulness training for organizational development in which all participants come together to engage in mindful conversation and constructive feedback.

For effectiveness of the MIO program, three main groups of participants are separately trained. They are (1) MIO for executives, (2) the 'Train the trainer' program for management, and (3) MIO for supervisors and employees. The first group is trained by the Chief Advisor and Psychiatrist of Department of Mental Health, Ministry of Public Health. For the second group, the trained executives become the main trainers to cascade and teach the MIO program to other managers. Lastly, the successive trainers then deploy the MIO training to the rest of organizational employees in groups of 30 employees per session.

3. Methodology

This study employed a qualitative research approach, using a case study design. A semi-structured interview approach was conducted for data collection to understand mechanisms of the MIO practices on the management and participating employees as well as gain insights about their perceptions on the MIO program and its outcomes. Using the JD-R model as the theoretical framework, the interviews were geared toward identifying how the MIO training can advance the fundamental framework of the JD-R model by studying personal resources, perceived demands, perceived resources, work engagement, team engagement, and organization engagement.

Overall, in-depth interview data were collected from 27 voluntary participants who previously joined the MIO training program, supported by Ministry of Public Health in Thailand. We ensure the highest ethical standard and our research protocols for data collection are approved by the authors' university. The data collection process is described in sequence. The researchers contacted and sought permission from MIO-participating organizations. After the organizational permission was granted, the researchers then contacted our MIO coordinator, who worked in the HR department, to obtain the participating organizational information and to recruit voluntary participants. The voluntary participants were recruited by the HR department based on their full-time employment with at least six-month working experiences and participation in the MIO program. They represented different management functions and employees with diverse job positions from various departments in a manufacturing company in the fast-developing country of Thailand. The approach helped to collect data with depth and breadth in order to gain a comprehensive understanding of the employee experiences, emotions, and behaviors and the organizational dynamics. To ensure the validity of the responses, cross-inspections were conducted among interviewees at the same managerial level as well as across different levels. Standardized interview protocols were established to ensure consistency and reliability of this study. All participants were informed about their privacy and confidentiality.

Table 3 shows the descriptive profile (i.e., job position and occupation) of the interviewees in this study.

Data from this study consisted of interview reports, transcripts, and field notes. For the analysis, data were analyzed using thematic methods (Kohlbacher 2006), and a Computer-Assisted Qualitative Data Analysis (CAQDAS) using Nvivo 12 qualitative software. CAQDAS simplifies the organization and analysis of large volumes of data, therefore conquering limits and shortcomings related to qualitative research (Miles and Huberman 1994).

In research, Nvivo provides benefits to a data analysis by enabling the analysis of large amounts of data in different coding using a pattern matching method, thereby overcoming limitations associated with qualitative research (Miles and Huberman 1994). In this study, it helped analyze a large amount of data for the ease of classification as well as formalize structural data processing into different themes or nodes. It also supported validity and reliability of the research results with data transparency. It also yielded an easy-to-understand graphical illustration for a rigorous interpretation and presentation of the resultant study.

Table 3. Descriptive profile of the interviewees.

Interviewee Demographics and Professional Details		No. of Interviewees	%
Age	20–30 Years	1	4%
	31–40 Years	8	30%
	41–50 Years	11	41%
	Over 50 Years	7	26%
Gender	Male	14	52%
	Female	13	48%
Education	Grade 6	1	4%
	Grade 9	3	11%
	Grade 12	6	22%
	Bachelor’s Degree	12	44%
	Master’s Degree	1	4%
	Vocational Certificate	4	15%
Job position	Manager	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%

4. Results

Findings from the analytical qualitative study uncover mechanisms of the mindfulness in organizations (MIO) and effects of the MIO training program on enhanced well-being and engagement at multiple levels. Our study supports and advances the original JD-R theoretical model. The results reveal how the mindfulness practices and training development can play a significant role in improving psychological capital, perceived resources, and perceived demands toward enhanced engagement at individual, team, and organizational levels. The result also highlights the importance of mindfulness training and its implications as an instrumental tool for human resource management, well-being improvement, and organizational development. Our detailed discussion of the results is described in sequence.

The results of the demographic profile of our voluntary participants in this study can suggest the following: One observation from our demographic result can imply that the mindfulness practices can benefit all employees across levels with diverse positions and in different occupations, as depicted in Table 3. Moreover, the MIO program can be well practiced by the mature employees at a workplace since the positive resultant outcomes are derived from the majority participants (70%), who are aged between 30 and 50 years old.

Importantly, our results from the NVivo software reveal an analytical model that depicts different thematic effects of the organizational mindfulness practices as illustrated in diverse nodes. Figure 2 represents the analytic model of mindfulness in organizations (MIO). Each node symbolizes a different structuring theme, and the connecting nodes represent their interrelationships between the emergent nodes (themes) and interconnected notes (sub-themes).

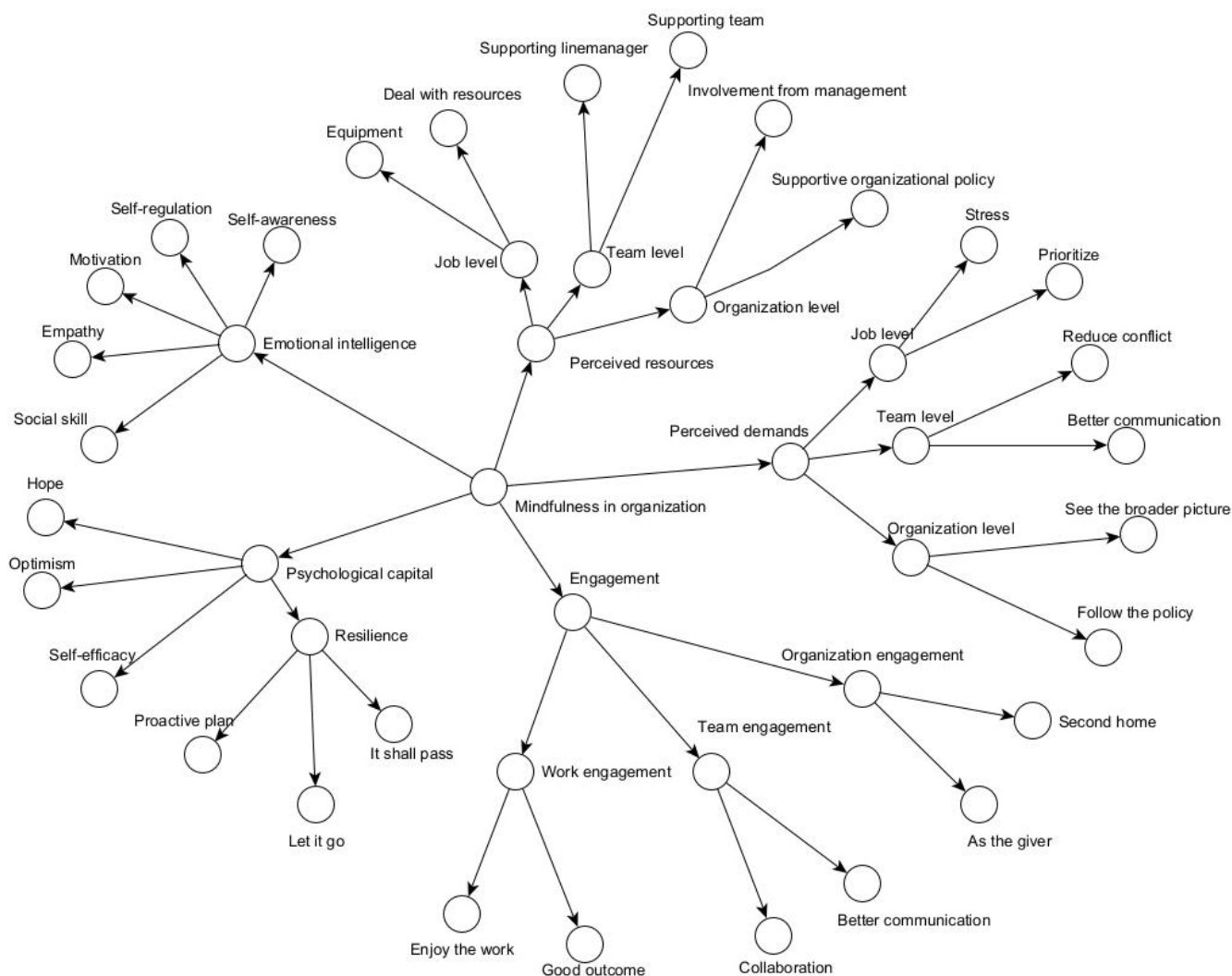


Figure 2. Analytic model of mindfulness in organizations (MIO) using NVivo software.

From Figure 2, our analysis shows that MIO is central to several resultant effects and outcomes that are well associated with the perceived job demands–resources model (JD-R model) and its components. Our research suggests that MIO can affect job demands, job resources, and personal resources at multiple levels of analysis (i.e., job, team, and organization). At the individual job level, the result shows that mindfulness can effectively mitigate job demands, assisting employees in prioritizing tasks and reducing stress levels. At the team level, it can also contribute to alleviating demands by reducing conflicts. Moreover, mindfulness fosters a deeper understanding of organizational policies, thereby reducing resistance to them among individuals. At the organizational level, integrating mindfulness into organizational policies creates a supportive environment, similar to providing employees with a second home. Our result also reports that mindfulness interventions can offer crucial support, particularly at the team and organizational levels, by enhancing resources and facilitating better communication among line managers. In summary, the analytical findings suggest that the cultivation of mindfulness not only helps in managing job demands but also nurtures employee engagement by bolstering job resources and mitigating stressors.

In this study, emotional intelligence additionally emerged as a new theme in connection with enhanced personal resources. The resultant nodes from Figure 2 also suggest that MIO can enhance emotional intelligence by improving self-awareness, self-regulation, motivation, empathy, and social skills. The finding expands the JD-R model and supports a framework of emotional intelligence by Daniel Goleman (1996). Furthermore, the engagement also

emerged as an affiliation to MIO in this study. The MIO effect on engagement can be classified into three different levels, specifically work engagement, team engagement, and organizational engagement.

Our results imply how the mindfulness developmental program can yield substantial managerial and organizational outcomes. At the micro-level of work engagement, individual employees can enjoy their work with good outcomes. For team engagement, teams can work together with better communication and collaboration. And, at the organizational level of engagement, employees can feel that their organizations care for them and become their second home. In total, the resultant nodes and their associations can be summarized in Table 4. Further detailed interpretations of each JD-R recurring component and emergent themes are described below.

Table 4. Summary of Resultant Nodes and Their Associations.

JD-R Component		Resultant Nodes
Resources	Job level	Awareness in resources or equipment to perform the task
		Utilizing resources
	Team level	Supporting team
		Supporting line manager
	Organization level	Supportive organizational policy
		Involvement of management
Personal Resources	Psychological capital	Hope
		Optimism
		Self-efficacy
		Resilience
	Emotional intelligence	Self-awareness
		Self-regulation
		Motivation
		Empathy
		Social skills
Demands	Job level	Prioritizing
		Reduce stress
	Team level	Better communication
		Reduction in conflict
	Organization level	Less resistance for the policy
		Follow the policy
Engagement	Work engagement	See the good outcome from the work
		Enjoy the work
	Team engagement	Better communication
		Collaboration
	Organization engagement	Organization is the giver
		Second home

Our analytical findings highlight the importance of MIO positive effects, recurring and emergent themes associated with the components of the JD-R model. Table 5 provides a summary of recurring and emergent themes, sub-themes, and relevant direct quotes from the interviews to illustrate how MIO can possibly enhance perceived resources, perceived demands, psychological capital, and emotional intelligence.

Table 5. Summary of recurring and emergent themes, sub-themes, and relevant direct quotes.

Enveloping Themes, Sub-Themes, and Sample Quotes
<p>Resources</p> <p>Enhancement in Perceived Resources</p> <p>Perceived resources at the job level Awareness of the resources or equipment needed to perform the task: “When working with machines, safety measures such as safety gloves play a crucial role in ensuring my well-being and overall protection.” (Inventory personnel #2) Utilizing resources: “Yes, it is beneficial. Sometimes, things don’t go as planned, right? In the past, I used to react aggressively with my emotions when faced with such challenges. After adopting this mindfulness approach, it’s like giving it another shot with a more positive mindset. Although it might take a bit more time, it often leads to a successful outcome and resolves the issue at hand.” (Sales personnel #5)</p> <p>Perceived resources at the team level Supportive team: “I find joy in my work, and it’s not stressful. Additionally, I have a positive relationship with my team, including my colleagues and line manager. If any challenges arise, I can consult with my line manager, who provides valuable advice to help us navigate and overcome any issues.” (Production personnel #2) Supportive line manager: “In my opinion, it does to a certain extent. If the tasks assigned by my line manager surpass my current capabilities, I rely on mindfulness. I can seek advice from my supervisor, gradually working on the task while considering their guidance.” (Production personnel #1)</p> <p>Perceived resources at the organization level Supportive organizational policy: “It provides support. Fostering a positive atmosphere within the organization, coupled with regular meditation or mindfulness practices, often leads to a reduction in errors. Embracing these practices helps me sustain a heightened sense of mindfulness in the workplace.” (Research and marketing planning officer #1) Involvement of management: “The management here is supportive and acts as mentors. The executives are approachable; during meetings, I actively participate by posing questions. If there’s something I don’t understand, I don’t hesitate to raise my hand, and they willingly provide answers and guidance.” (Customer service #1)</p>
Enveloping Themes, Sub-Themes, and Sample Quotes
<p>Personal Resources</p> <p>Psychological Capital</p> <p>Hope: “Success is not an individual pursuit. Hoping alone is not enough; it requires a collective effort, a team. Simply fostering personal hopes doesn’t guarantee success. It’s crucial to communicate and share aspirations with others, aligning everyone in the same direction to achieve common goals.” (Sales person #4).</p> <p>Optimism: “If I maintain an optimistic outlook, it can be beneficial for me. Being optimistic means less stress and not dwelling on negative thoughts. It allows me to avoid unnecessary suffering, letting go of concerns and embracing a positive mindset.” (Sales person #2)</p> <p>Self-efficacy: “Yes, there is. It’s a belief in my ability. There may have been times when I doubted my capabilities. However, with improved concentration and mindfulness, I’ve realized that it’s not a matter of being unable to do everything. When faced with challenging assignments that initially seem daunting, I’ve learned to be mindful and reframe my thoughts. Instead of succumbing to negativity, I program myself to believe that I can do it. I find that I am capable of accomplishing the task at hand.” (Procurement personnel #1)</p> <p>Resilience: “Yes, absolutely. Everything I’ve mentioned here serves as a kind of mental toolkit for dealing with challenges. When faced with difficulties, I have specific affirmations or words that help me regain mindfulness more quickly. I recognize that it’s natural for people not to be happy all the time, and having these tools allows me to navigate and overcome moments of adversity.” (Sales person #5)</p>

Table 5. Cont.

Enveloping Themes, Sub-Themes, and Sample Quotes
Emotional Intelligence
Self-awareness: “It enhances my approach. For instance, once I understand what I’m currently working on, it allows me to streamline my efforts and work more efficiently.” (Research and marketing planning officer)
Self-regulation: “Managing my mindfulness is crucial. At times, anger tends to take precedence, and in those moments, I may not consider all the reasons behind it. When I’m not mindful, it becomes challenging to pinpoint the true cause, as it may originate from external factors or even within myself.” (Financial officer #1)
Motivation: “I believe that having a clear goal is the key to achieving what I set out to do. It enables me to continually improve myself and stay focused on the target.” (Quality assurance officer #1)
Empathy: “In our work, having a streamlined process is essential. Once we complete a task and ensure its quality through review, the next person in line can seamlessly take over without any concerns. This efficient handover allows them to continue the workflow or proceed with other tasks without the need for additional checks or delays, saving valuable time.” (Diagnostic officer #1)
Social skills: “As mentioned earlier, individuals may experience a range of emotions. Dealing with this requires a strategic approach. I assess their style and preferences, allowing me to tailor my communication and interactions accordingly.” (Production personnel #5)
Enveloping Themes, Sub-Themes, and Sample Quotes
Demands
Perceived demands at the job level
Prioritizing: “Indeed, mindfulness is immensely beneficial, especially in prioritizing tasks. Without proper organization, work can become chaotic. Mindfulness enables me to discern the importance of each task, helping me prioritize effectively. By being mindful of what needs immediate attention and what can be deferred.” (Accountant #3)
Reduced stress: “Mindfulness leads to better work quality and reduces stress.” (International sales person #1)
Perceived demands at the team level
Better communication: “It doesn’t mean I need to counter back. Instead, I choose to be a listener. In challenging situations, it’s crucial to listen first, let them express themselves, and then engage in a conversation once they’ve calmed down. Many times, people who are stressed or facing problems just need someone to listen and understand.” (Production personnel #4)
Reduction in conflict: “Well, mindfulness helps me avoid comparing my workload with others. If I approach my work with a positive mindset, being content with what I accomplish, it prevents issues with colleagues and promotes a healthier work environment.” (Maintenance personnel #1)
Perceived demands at the organizational level
Less resistance to the policy: “When a policy is implemented, it’s essential for us to adhere to it. Following management guidelines is crucial, as these policies are designed to be beneficial and have undergone careful consideration before being introduced. Complying with policies ensures a smoother and more effective functioning of the organization.” (Inventory personnel #1)
Alignment with the policy: “Absolutely, being mindful of the policies is crucial. It’s essential to consider the rationale behind each policy implementation. Policies are typically designed with specific reasons and often support compliance with standards.” (Maintenance personnel #1)

From the developing themes in the JD-R component mentioned above, the analytical findings also show the emerging theme of engagement including work engagement, team engagement, and organization engagement from the in-depth interviews. Table 6 demonstrates how mindfulness can possibly enhance different levels of engagement, affecting cognitive, emotional, and behavioral flexibility. Our result indicates that, with mindfulness practices, individuals can present awareness in their mindful thoughts and slow down their immediate automatic responses to the external circumstance in terms of cognitive, emotional, and behavioral responses. Table 6 also exhibits how emotional intelligence can also enhance different levels of engagement in this study.

Table 6. Emerging themes of engagement in this study.

Engagement	Emotional Intelligence	Emerging Themes	Cognitive Flexibility Emerging Themes from the Interviews	Emotional Flexibility Emerging Themes from the Interviews	Behavioral Flexibility Emerging Themes from the Interviews
Work engagement	Self-awareness Self-regulation Motivation	- See the good outcomes from the work	<p>See the good outcomes from the work</p> <p>- Problem-solving, which used to be complicated, has now become more streamlined. I've learned the importance of slowing down my thoughts, avoiding rushing, and taking a moment to consider things. This deliberate pace allows for gradual and effective problem resolution, preventing the need for repeated fixes. (Sales person #4)</p>	<p>See the good outcomes from the work</p> <p>- Feeling good about applying and expanding my knowledge is essential, as it contributes significantly to my overall satisfaction and sense of purpose in life. (Engineering manager #1)</p>	<p>See the good outcomes from the work</p> <p>- Processing tasks with focus and consideration significantly improves the quality of the work, minimizing the chances of errors or oversights. (Engineering manager #1)</p>
		- Enjoy the work	<p>Enjoy the work</p> <p>- After I wake up in the morning, I want to come to work. Maybe it's just me? I'm not sure. Other people? For the work that I have been assigned, I make the best of it, working like I am on the job for the first day again. (International sales person #1)</p>	<p>Enjoy the work</p> <p>- When I am calm, wisdom will arise. Wisdom is mindfulness. Once there is mindfulness, I am able to do things happily and experience happiness. Many people can also do the same like me. (Sales person #3)</p>	<p>Enjoy the work</p> <p>- When we have month-end closings, we can complete the task correctly on the first attempt. There's no need for additional work or wasted time on corrections because I practice mindfulness from the outset. (Accountant #3)</p>
Team engagement	Empathy Social skills	- Better communication	<p>Better communication</p> <p>- It's common for people to have varying perspectives, and there might be instances where someone may not share the same opinion or feelings. (Engineering manager #1)</p> <p>- Individuals may experience a range of emotions. Adopting a strategic approach involves considering each person's unique style and preferences. (Production personnel #5)</p>	<p>Better communication</p> <p>- Maintaining a positive mood enhances my interactions with both colleagues and outsiders. When I'm in a positive state, it is reflected in my conversations and interactions with others. (Research and marketing planning manager #1)</p>	<p>Better communication</p> <p>- Mindfulness plays a crucial role in communication, particularly when acting as the intermediary between the sender and recipient. As a procurement professional, you hold a significant responsibility in conveying the organization's requirements to suppliers. (Procurement personnel #1)</p>
		- Collaboration	<p>Collaboration</p> <p>- Diversity in perspectives is inevitable, and it's common for individuals to hold differing opinions or feelings towards us. Acknowledging and respecting these varying viewpoints is essential for effectively managing interpersonal relationships. (Engineering manager #1)</p>	<p>Collaboration</p> <p>- Through mutual reminders and support, we gradually help each other think and improve. This collaborative effort fosters a positive atmosphere among friends or colleagues, enhancing our sense of camaraderie and mutual assistance. (Accountant #1)</p>	<p>Collaboration</p> <p>- This group mindfulness approach not only promotes individual well-being but also contributes to a reduction in work-related issues and conflicts among colleagues. (Accountant #1)</p>

Table 6. Cont.

Engagement	Emotional Intelligence	Emerging Themes	Cognitive Flexibility Emerging Themes from the Interviews	Emotional Flexibility Emerging Themes from the Interviews	Behavioral Flexibility Emerging Themes from the Interviews
Organizational engagement	Self-awareness Self-regulation Motivation	- Organization is the giver	Organization is the giver - It's a positive aspect of the organization that they provide opportunities for both work and independent thinking. The environment encourages individuals to express their ideas, and constructive criticism is welcomed to refine and improve those ideas. (Sales person #1)	Organization is the giver - I have positive feelings about the organization; it has been beneficial for me. It has played a role in enhancing my interpersonal skills, fostering better communication, and encouraging more thoughtful consideration in my work. (Production personnel #2)	Organization is the giver - I'm content with this workplace. Throughout the year, numerous training sessions are available, both internally and externally. If there's any interesting external training, offering an open opportunity for continuous learning and skill development without any barriers. (Procurement personnel #1)
		- Second home	Second home - This place feels like a second home; I come here every day. When I engage in activities, my thoughts connect with my family, considering the organization as a significant part of my daily life. It's as if this is my second home. (International sales person #1)	Second home - It's like everything here belongs to me; there's a sense of ownership. This feeling motivates me to think about ways to improve and advance the business, contributing ideas for the continuous development and progress of our organization. (Accountant #1)	Second home - Your dedication and engagement are noticeable, as you consistently spend more time at work than at home. Beginning work as early as 6:30 or 7:00 am, instead of waiting until 8:30 am, showcases your proactive and committed approach to your responsibilities. (Inventory personnel #1)

5. Discussion

This study critically answers to the management inquiry about benefits of mindfulness as the instrumental management training for human resource and organizational development. This qualitative research provides an informative perspective and insights of the mindfulness in organizations or MIO mechanism and its associations with multiple outcomes. Using an evidence-based case study, the findings have the potential to broaden our currently limited understanding about how mindfulness in organizations and its development program can practically enhance psychological capital, and emotional intelligence and employee engagement, at three levels: work, team, and organization engagement. Our results support and expand the recent studies on positive effects of mindfulness on psychological capital, and emotional intelligence and employee engagement (e.g., [Carroll et al. 2022](#); [Motevalli et al. 2023](#)). As a result, the mindfulness training program or MIO can benefit employee well-being and support human resource development (HRD) toward achieving a sustainable organization in the long run.

Firstly, the result implies that mindfulness can leverage work engagement. It can enable employees to remain calm, feel less stressed and anxious, have the ability to prioritize, and gradually respond to work demands. This is consistent with a preceding study, which suggests that attention from mindfulness practices can improve work performance ([Condon 2017](#); [Cheng et al. 2023](#); [Charoensukmongkol and Puyod 2022](#); [Liu et al. 2022](#)) as well as safety behaviors ([Zhang and Wu 2014](#)). Secondly, the finding suggests that MIO can enhance team engagement by fostering prosocial behaviors and collaboration in teams with colleagues. The result is in line with previous studies that link between prosocial behavior and other factors ([Adair et al. 2018](#); [Condon 2017](#)). It also aligns with Reitz's

suggestion (Reitz et al. 2020) that improvement in collaboration can be related to the amount of mindfulness practices of employees at the supervisory level. Thirdly, regarding the organization engagement, the finding supports the social exchange theory (Cropanzano and Mitchell 2005), which states that people tend to contribute back to the organization using the organizational resources they have received. In line with the literature, our overall finding affirms that mindfulness can contribute to enhancing organizational support and well-being (Jobbehdar Nourafkan et al. 2023; Motevalli et al. 2023).

Figure 3 provides a summary of the systematic process of the MIO mechanisms and its resultant outcomes from the implementation regarding the individual, team, and organizational development in this study. In general, it is suggested that the implementation of the MIO program through the mindfulness practices can support employee, management, and organizational development to varying degrees. It can help enhance human capital and capacity development through improved psychological capital (i.e., optimism, self-efficacy, self-esteem, and resilience) and emotional intelligence (self-awareness, self-regulation, motivation, empathy, and social skills). It can also support the job demands–resources (JD-R) model with enhanced perceived job resources and demands at the job, team, and organizational levels. Additionally, MIO can support various positive work outcomes, such as work satisfaction/enjoyment, better communication, improved collaboration, and increased feelings toward giving and caring. The results also show the discrete trace of how MIO can support engagement at different levels, resulting in positive work engagement, team engagement, and organizational engagement. Importantly, Figure 3 highlights the importance of the JD-R model as it helps paint an integrative picture of how the mindfulness intervention can enhance job demands and job resources across different organizational levels.

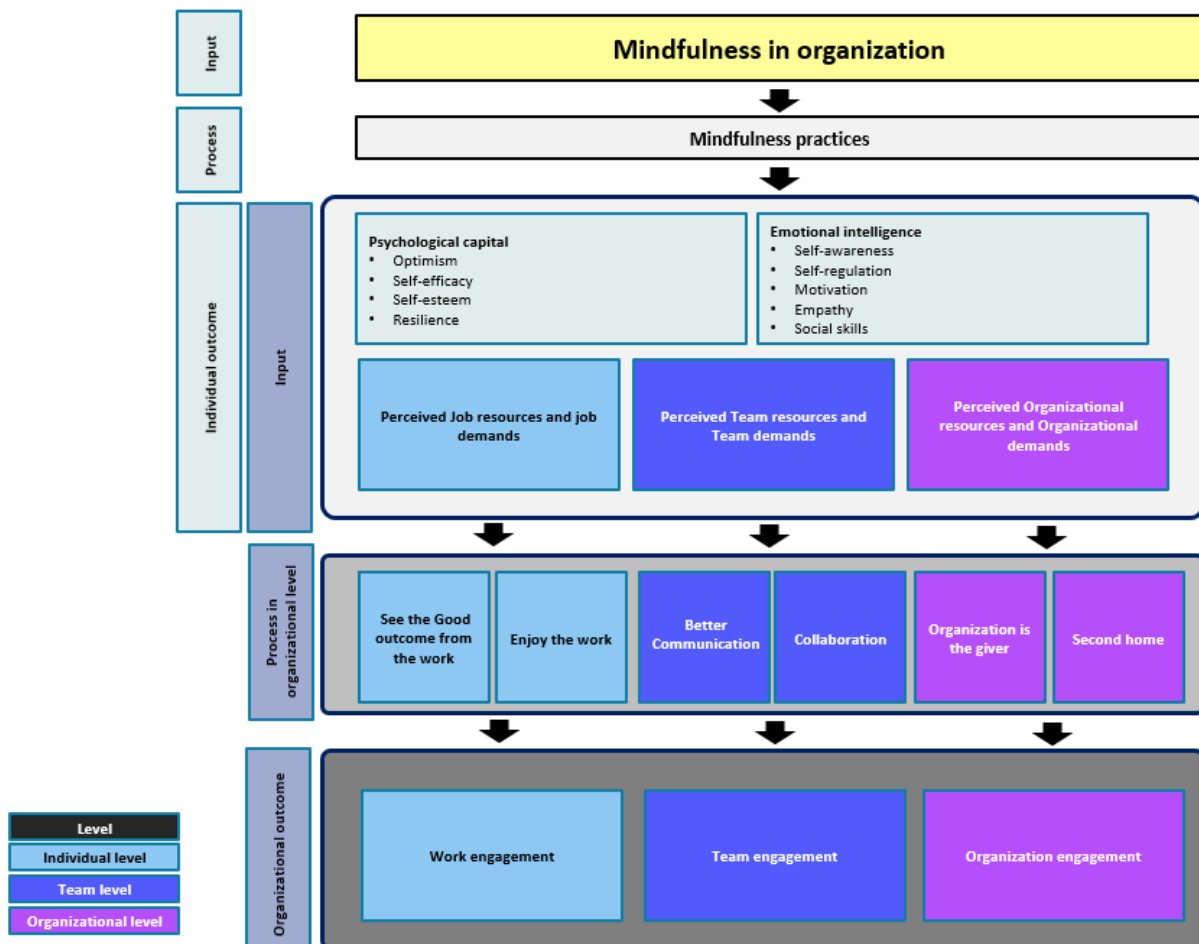


Figure 3. Resultant outcomes from the systematic process of mindfulness in organizations (MIO) toward human capital and organizational development.

Through the lens of the JD-R model, they have the opportunity to strategically allocate resources to cultivate environments that promote employee well-being and engagement, thereby maximizing the effectiveness of mindfulness interventions and enhancing engagement levels across the organization. Mindfulness within organizational contexts facilitates the recognition of components that contribute to individual perceptions of work value, thereby fostering increased work engagement. Moreover, mindfulness practices promote enhanced communication and collaboration among team members, thereby fortifying team resources and augmenting team engagement. Nurturing a culture of generosity within the organization, coupled with cultivating a workplace environment where employees feel secure and valued, may improve organizational engagement. Furthermore, integrating mindfulness practices into organizational development can theoretically and practically benefit everyone in firms.

Furthermore, the result advances the theoretical development of the existing JD-R model, as shown in Figure 4—the final emerging framework. This study proposes that MIO and its mindfulness practices are additional enablers of the JD-R model that can drive engagement. The proposed model is expanded to encapsulate emotional intelligence as a supplementary component of personal resources. The resulting framework thus extends the personal resources to emotional intelligence in the JD-R model. The emotional intelligence may also imply the positive psychological capital (i.e., hope, optimism, self-efficacy, and resilience) and link to behavioral flexibility in leaders and employees in firms, consistent with the literature (Baron et al. 2018; Luthans and Youssef-Morgan 2017). By enhancing perceived resources, we expect individuals to shape their resources caravan (Hobfoll 2002). In addition, a reciprocal relationship between job resources and personal resources can be anticipated (Xanthopoulou et al. 2009). Overall, our resultant model suggests that MIO and its mindfulness practices positively enhance the essential resources and consequently drive engagement, as exhibited in Figure 4.

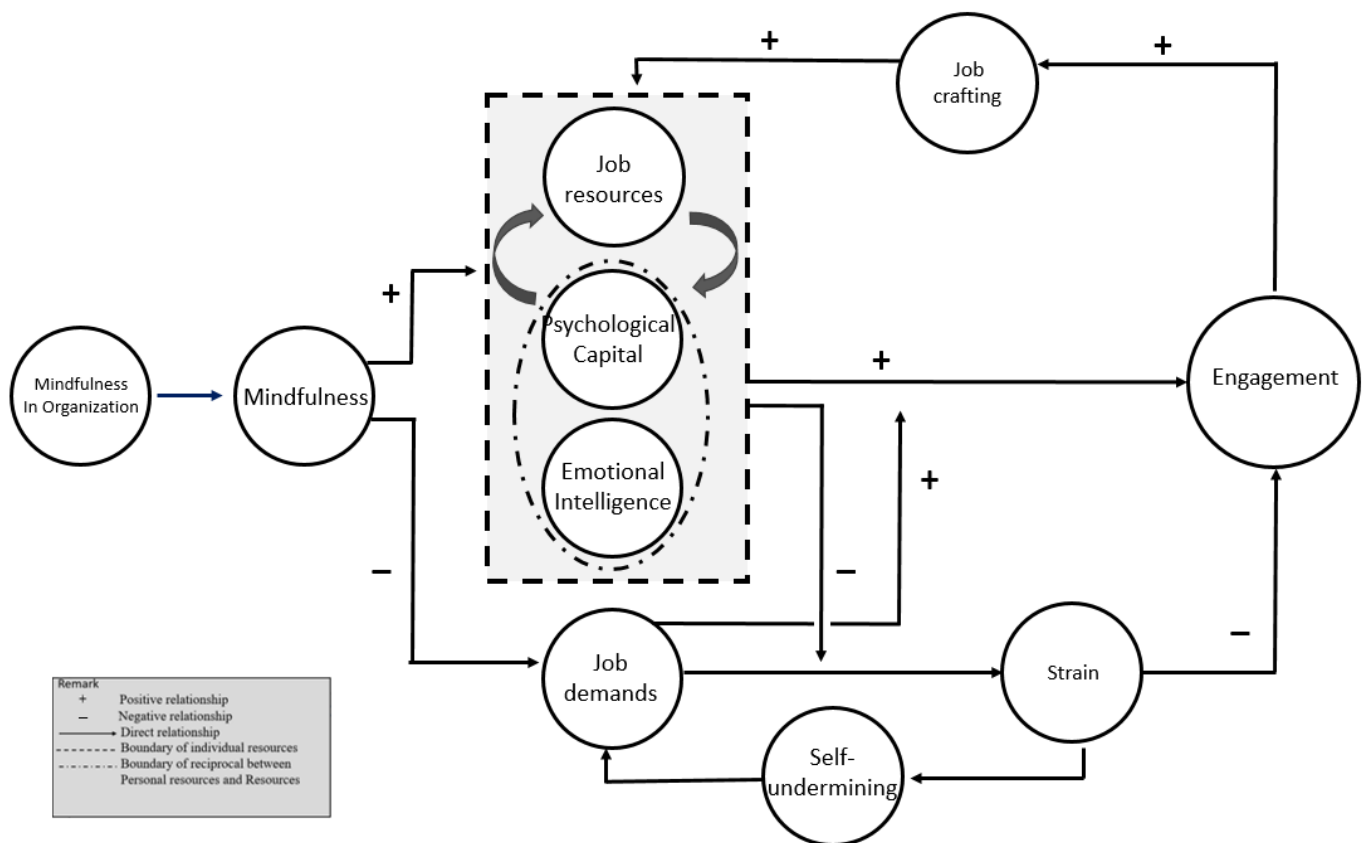


Figure 4. Enhanced JD-R model incorporating mindfulness and employee engagement.

Largely, this study has uncovered invaluable insights into the mechanisms of mindfulness within organizational contexts, particularly through the mindfulness in organizations (MIO) training program. The findings not only illuminate the profound impact of mindfulness practices on employee well-being and engagement but also contribute to theoretical advancement by integrating mindfulness and emotional intelligence into the job demands–resources (JD-R) model. This integration provides a comprehensive understanding of how mindfulness interventions can foster engagement across various organizational levels. In total, this study advances and enhances the JD-R model by integrating emotional intelligence into the existing literature. This incorporation expands our limited understanding about mindfulness practices and benefits in workplace settings, thereby contributing to the extension of the body of knowledge in this field. Furthermore, it advances the literature in human resource development by highlighting the pivotal role of emotional intelligence and mindfulness in fostering employee well-being and engagement.

Overall, the result supports that the MIO integration can enrich the human capital development by fostering a culture of continuous learning and personal growth with mindfulness. Our evidence-based study also implies that leaders, managers, and all stakeholders within organizations can overall enhance sustainable well-being through MIO. Hence, it is suggested that contemporary organizations can harness the benefits of mindfulness by integrating the mindfulness practices or implementing MIO as the instrumental development programs in multiple and all levels to support human resource management and development.

In practice, we recommend that organizational leaders and management should strategically take the leading role in educating and sponsoring MIO implementation to support employee well-being, performance, and engagement. Organizations that wish to be successful in adopting MIO should systematically and strategically implement mindfulness practice throughout the whole organization, starting from the top to bottom across levels and for all employees, to materialize the MIO organization-wide benefits, as evidenced in this study. We also propose the following possible actionable steps for the mindfulness program implementation in organizations: Initially, firms may need to identify and assess MIO understanding and employee needs, then initiate customized MIO training sessions or developmental workshops to proactively promote mindfulness practices with an alignment with their organizational cultures, and finally establish monitoring and evaluation systems to analyze cost–benefit values. It is crucial for organizational leaders and managers to actively engage in setting mindfulness initiatives as part of the human resource development strategy and encompassing the holistic humanistic development toward organizational development. By prioritizing mindfulness, leaders can nurture a strong culture of mindfulness toward increased employee engagement and sustainable well-being. Furthermore, we suggest that successful employment and deployment of MIO as a strategic organizational development tool can be a good opportunity to grow mindful leadership and management within organizations and to increase employee well-being and engagement. However, limited organizational training investments and lacking understanding on its practicality and managerial implications may become the key challenges for growing MIO implementation in firms.

In summary, our analytical findings may help to bridge the literature gaps in the emerging field and provide critical evidence to support the theoretical advancement as mentioned above. This study contributes to both the academic discourse and practical implications in the multidisciplinary field of organizational behavior, psychology, human capital development, and management.

6. Limitation and Future Research

This study strives to unveil and advance our limited understanding in this developing subject. Yet, this study focuses on a single case study in a manufacturing company in Thailand. Generalization may be limited. We suggest that future research may expand our finding by conducting more case studies with cross-case validation and further comparison

in other industries or countries to advance the inadequate knowledge in this realm. Further research may explore how MIO and mindfulness practices can enhance engagement beyond a manufacturing setting in other settings. Upcoming studies should explore the application of organizational mindfulness in other business sectors, both public and private institutions. Moreover, a quantitative research study using a newly developed questionnaire survey may be examined to measure effects and/or benefits of mindfulness on both individual and organizational well-being and performance. Additionally, investigating how mindfulness practices can improve employee well-being, reduce stress, and increase engagement in diverse contexts could provide further insights on fostering healthier work environments and sustainable well-being in firms.

7. Conclusions

Our study advances the theoretical development and highlights practical implications of the multidisciplinary research front, particularly in organization behavior, organizational development, and human capital development. The research finding supports the importance of mindfulness practices as the instrumental management development to improve employee well-being and support employee engagement using the MIO program. It addresses how mindfulness can improve psychological capital, emotional intelligence, and engagement at multiple levels (i.e., work engagement, team engagement, and organizational engagement). This study investigates the mechanisms of mindfulness practices using a job demand–resource model (JD-R model) to further develop the original JD-R theoretical model. And, the resultant mindfulness intervention in organizations appears to support positive outcomes, particularly improving mental functions and enhancing engagement at work. Our findings regarding the mindfulness practices are significant for enhancing effective human resource management, engagement, and development in firms. Overall, the research results can practically benefit human resource development toward achieving performance improvement and sustainable organizational well-being.

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