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Improving Work Performance: Examining the Role of Mindfulness and Perceived Control of Internal States in Work Engagement

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Abstract

Introduction: Organizations are in constant endeavor to find ways to enhance their employees' productivity and efficiency. In this context, the present study attempted to examine if mindfulness and perceived control of internal states along with major demographic variables act as indicators of work engagement in front-liner employees.

Method: In this survey, 180 front-liners who were selected through purposive sampling from five private organizations participated. The Cognitive and Affective Mindfulness Scale-Revised, Perceived Control of Internal States Scale, and Utrecht Work Engagement Scale were administered. The obtained quantitative data were analyzed in terms of descriptive statistics, Pearson's r, and multiple hierarchical regression analysis.

Results: Findings revealed that out of the six predictors under study, five predictors—mindfulness, perceived control of internal states along with three demographic variables (age, marital status, and years of service)—were found to significantly correlate with employees work engagement.

Conclusion: It was observed that mindfulness was a significant predictor when it was considered solely as an indicator of work engagement. Nevertheless when other predictors were considered, perceived control of internal states was found to be a dominant indicator of work engagement across the models. The shortcomings, future directions, and implications were also discussed.

Keywords: Mindfulness, Perceived Control of Internal State, Work Engagement, Organization, Front-line Employees

Introduction

The demands of the fast–paced and competitive developing economy create an adverse psychological impact on the workforce. Work related stress especially to yield higher productivity makes the working class susceptible to burnout, alienation, disharmony in work and life, and shrinkage of psychological capital [1].Organizations are in constant endeavor to find ways to increase their employees' productivity and efficiency. Work engagement is one such popular emerging parameter to observe an employee's optimal functioning. To achieve a productive outcome, employees must be constantly brushing their cognitive processing to maintain best possible internal state of emotions, thoughts, physical reactions, etc. The fluency of the cognitive processes requires sharp "wakefulness" to mental and external stimuli as opposed to blunt or restricted internal and external awareness of self. Mindfulness naturally occurs (without any training) in every being but in varying capacities of awareness and attention, making it a prerogative to assess its influence on the organizational output capacity through its alteration of the mental state.

Mindfulness is a naturally occurring psychological characteristic; a proactive cognitive process putting the individual in a state of heightened consciousness—a focused state of awareness and attention to particular stimuli among a sea of potentially arousing activities [2]. It is well explained using the self-determination theory [3] which describes the

functioning of mindfulness in two ways: directly—by amplifying attention; and indirectly—by increasing awareness of internal psychological processes. Nurturing these pathways simultaneously generates higher levels of authentic functioning, i.e. a sense of true feeling towards oneself [4].

Perceived control of internal states [5] is an individual's 'primary control' over their internal states, and a perceived ability to be able to minimize the impact of adversities and its effect on their emotions, thoughts, and well-being. It is the individual's self-appraisal of the ability to exert control or the belief that one can influence victory over outcomes and avoid unwanted ones [6]. It is a blend of internal locus of control (attributional belief that outcomes depend on personal actions) and self-efficacy (confidence in self to execute an action to achieve desired outcome).

Work engagement connotes mental exuberance, understood best in terms of "high work involvement, work enjoyment, and low drive" [7]. By the implication of positive involvement, the phrase 'work engagement' stands out distinctively as a counterpart of burnout syndrome and workaholism. Work engagement has been conceptualized as "a positive psychological and motivational state of mind that includes a genuine willingness to put effort in one's work and towards organizational success" [8-10].

Engaging positively in one's own work is a precursor to employee well-being [7]. High levels of mindfulness helps to bring about an optimum level of engagement through less over-engagement such as worrying, over-thinking and over-generalizations of events; as well as less under-engagement such as thought suppression and experiential avoidance [2, 11, 12]. Mindfulness facilitates re-perception of any experience through a non-judgemental attention towards internal experiences [13] thereby hinting towards a shift in the level of perceived control of internal states. Studies have also found a great overlap between the concepts of mindfulness and internal state awareness [14, 15]. It helps to add clarity and vividness in any experience through the process of thought-action fusion and increasing real time experience of emotions [16]. Mindfulness has been effectively used with workers and managers and was seen to be associated with decreased burnout, enhanced creativity and reduced accidents in the workplace [17]. It was found from a study that perceived control had improved most for the group practicing mindfulness meditation [18], and that locus of control and work autonomy has a moderating effect between organizational support and affective commitment [19].

Individuals with high perceived control believe that there is an active association between their internal state and the outcome of their actions. It helps them look for alternatives for reachable goals and disengaging from impractical goals [6]. High level of perceived control of internal states lowers physical and psychological strain [5] thus equipping individuals to effectively buffer against stress. Steptoe and Appels [20] had proposed that in the use of coping techniques such as mindfulness—one's perceived control would enhance the effectiveness of the technique. The capability of an individual to exercise control of one's thoughts, emotions and reactions empowers the person to deal with the situation more rationally and systematically. In a study it was found that with increase in age, there is increase in work engagement; whereas gender had no role in it [10]. In the case of occupational groups, manual labor workers (blue collars) had less engagement in work compared to managers, educators, and police officers. Work engagement was not seen to be affected by marital status [21].

Majority of studies over the past years have concentrated on the identification and combat of negative aspects of work involvement such as burnout and workaholism. With the progress in positive psychology, interest in the affirmative impact of work involvement has risen [22]. A number of studies have started to consider the links between mindfulness and work engagement [4, 23]. However, there is limited research in the area of study linking work engagement, mindfulness and perceived control. Therefore, this study had been conceptualized to examine whether mindfulness and perceived control of internal states along with major demographic variables—age, gender, marital status, and years of service—act as indicators of employee's work engagement.

The objectives of the present study were framed as: (i) to examine the relationship between psychological constructs of mindfulness, perceived control of internal states, demographic variables and work engagement in front-line employees, and (ii) to examine the major indicators/ role of mindfulness and perceived control of internal states along with demographic variables in work engagement of front-line employees.

Method

The study included 180 employees (51.7% men and 48.3% women) recruited through purposive sampling from five private organizations in two leading cities. The set of employees were popularly called front-liners or pink collar workers, as they represent the employees who are directly involved in production or interaction with the client, therefore vulnerable to the negative effects of high productivity demands from the organization. These employees form the base of every organizational hierarchical structure and are most susceptible to declining work engagement. Any employee above the age of 18, working as a frontline employee with a minimum one year of service was included in the study. Individuals with a history of any psychiatric illness were excluded from the study. The age range of the participants was 21 years to 60 years (M = 29.9, SD =8.51). The minimum years of service range from one year to 39 years (M = 6.40, SD = 7.49). The demographic details of individuals such as age, gender, marital status and years of service were also considered in the analysis. All the participants were full-time salaried personnel. Initially, consent was taken from the respective organizations, a rapport was built and the study objectives were explained to the participants.

The Cognitive and Affective Mindfulness Scale-Revised,

Perceived Control of Internal States Scale (PCOISS) and Utrecht Work Engagement Scale (UWES) were administered in groups and a few times individually. The data gathered from all the participants were analyzed using appropriate statistics.

The tools used in this study were as follows:

The Cognitive and Affective Mindfulness Scale-Revised (CAMS-R): The CAMS-R has 12 items based on a four point rating scale from Not at all (1) to Almost Always (4). It assesses the general daily experience of the capacity and willingness to be mindful. The scale purports to measure attention, present-focus, awareness and acceptance/non-judgment of thoughts and feelings. E.g. "It is easy for me to concentrate on what I am doing." Higher score indicates higher levels of mindfulness. The CAMS-R has exhibited acceptable convergent and discriminant validity with other measures of mindfulness, emotional clarity, avoidance, and over-engagement. For the present sample in this study, the Cronbach's alpha value was 0.37.

Perceived Control of Internal States Scale (PCOISS): The PCOISS is an 18-item scale intended to gauge respondents' self-appraisal of their ability to regulate their internal states and to avert negative events and its effect on emotions, cognition, and wellbeing. The scoring is based on a five point Likert scale ranging from Strongly Disagree (1) to Strongly Agree (5). Eg. "No matter what happens to me in my life I am confident of my ability to cope emotionally." The scores range from 18 to 90, with high score suggesting high perceived control of internal states. Acceptable construct and incremental validity has been established by this scale. The Cronbach's alpha value was 0.83 for this sample.

Utrecht Work Engagement Scale (UWES): The scoring is done on a seven-point rating scale based on the frequency of occurrence—varying from 0 (Never) to 6 (Always). It includes three subscales—vigor, dedication, and absorption. The definition and examples of each type of subscale are presented below. Vigor refers to enthusiasm, energy and persistence to deal with difficult situations at work. E.g. "When I get up in the morning, I feel like going to work." Dedication refers to the driving force at a job that is derived through a sense of significance from one's work, and challenge, pride, and inspiration related to one's work. E.g. "My job inspires me." Absorption refers to being totally and happily submerged in one's work, often unaware of the surroundings and the flow of time. E.g. "I feel happy when I am working intensely." High scores on each subscale and high total score are indicative of high levels of engagement in work. Good construct validity has been found with this scale. For the present study, the Cronbach's value for each of the subscales ranged from 0.44 to 0.80.

Results

The obtained quantitative data were analyzed in terms of descriptive statistics, Pearson's product-moment correlation coefficient (Pearson's *r*), and multiple hierarchical regression analysis using IBM SPSS Statistics 20. In the analysis, the predictors (indicators) were broadly classified into two—psychological constructs (mindfulness, and perceived control of internal states) and demographic variables (age, gender, marital status, and years of service). The criterion was work engagement. In addition to this, each of the dimensions of work engagement was considered as criterions. Hierarchical regression analysis was computed to identify the major indicators. Prior to this, Pearson's *r* was computed to find a linear relationship between the predictors and criterions, and to identify the suitable predictors to be entered into the model.

The values of Pearson's r along with descriptive statistics (*M* and *SD*) are presented in Table 1.

From Table 1, it was found that all predictors except gender had significant positive correlation with total work engagement. The correlation coefficient varied between 0.35 and 0.16. Therefore, mindfulness, perceived control of internal states, age, marital status, and years of service were selected to be entered into the hierarchical model to identify the indicators of work engagement.

In the case of vigor—the first dimension of work engagement—except gender and marital status, all other four predictors showed significant positive correlation. The correlation coefficient varied between 0.35 and 0.16. Hence, mindfulness, perceived control of internal states, age, and years of service were chosen to be entered into the hierarchical model to identify the indicators of vigor.

For dedication—the second dimension of work engagement—it was observed that all predictors except mindfulness and gender had significant positive correlation. The correlation coefficient varied between 0.29 and 0.20. Hence, perceived control of internal states, age, marital status, and years of service were selected to be entered into the hierarchical model to identify the indicators of dedication.

Table 1. Product Moment Correlation Results between Criterions and Predictors (N=180)

Predictors			Criterions			
	M[a]	*SD*[a]	Work Engagement	Vigor	Dedication	Absorption
Mindfulness	26.51	3.48	.16*	.25**	.11	.05
PCIS	60.22	8.97	.35**	.35**	.29**	.25*
Age	29.29	8.51	.24**	.20*	.24**	.17**
Gender	-	-	.02	.03	.05	-.03
MS	-	-	.19*	.13	.20**	.13
YS	6.42	7.48	.24**	.16*	.25*	.18*
M[b]			39.26	12.76	13.55	12.95
SD[b]			9.51	3.64	3.35	4.21

Note. [a]Mean and SD of predictors; [b]Mean and SD of criterions; [c]Male = '0', Female = '1'; [d]Unmarried = '0' Married = '1'; PCIS = Perceived control of internal state, MS = Marital status, YS = Years of service

*$p < 0.05$, **$p < 0.01$

Mindfulness, gender, and marital status were not significantly correlated with absorption—the third dimension of work engagement. Among the significantly correlated predictors, the correlation coefficient varied between 0.25 and .17. Thus, perceived control of internal states, age, and years of service were selected to be entered into the hierarchical model to identify the indicators of absorption.

Based on the findings of the above analysis four hierarchical analysis models were developed for work engagement and its three dimensions. As the linearity assumption was tested, other essential assumptions such as normality, homoscedasticity, and absence of multicollinearity were also verified for each model. The results of these four separate models are presented in Table 2 to Table 5.

As seen in Table 2, the significantly correlated predictors were entered hierarchically in three blocks—Block 1 (mindfulness), Block 2 (perceived control of internal states), and Block 3 (age, marital status, and years of service)—in respect of work engagement. Model 1, consisting of mindfulness was found to be significant, F (1, 178) = 4.50, p = .035, which explained 3% significant proportion of variance (*Adjusted* R^2 = .02) of work engagement. From the analysis, mindfulness was found to be a significant predictor for work engagement (β = .16, p = 0.035) in the model. Model 2, where perceived control of internal states was entered in addition to mindfulness, was found to be significant, F (2, 177) = 12.75, p < 0.001, and the model explained 10% more significant proportion of variance (ΔR^2 = .10, p < 0.001) amounting to total 13% significant proportion of variance of work engagement (*Adjusted* R^2 = .12). The results revealed that in Model 2 only the perceived control of internal states was only found to be a significant predictor (β = .33, p < 0.001) for work engagement. Model 3, demographic variables such as age, marital status, and years of service were entered in addition to mindfulness and perceived control of internal states, was found to be significant, F (5, 174) = 7.37, p < 0.001. The model accounted for 5% more significant proportion of variance (ΔR^2 = .05, p < 0.05) amounting to a total 18% significant proportion of variance of work engagement (*Adjusted* R^2 = .15). From the analysis it was found that only perceived control of internal states was a significant indicator (β = .31, p < 0.001) for work engagement, in the model.

Likewise, the hierarchical regression analysis models were developed in respect of each of the dimensions of work engagement independently.

As seen in Table 3, the significantly correlated predictors were entered hierarchically in three blocks—Block 1 (mindfulness), Block 2 (perceived control of internal states), and Block 3 (age, and years of service)—in respect of vigor. Model 1, consisting of mindfulness was found to be significant, F (1, 178) = 11.55, p = 0.001), which explained a 6% significant proportion of variance of vigor. From the analysis, mindfulness was found to be a significant predictor for vigor (β = .25, p = 0.001) in the model. Model 2, where perceived control of internal states was entered in addition to mindfulness, was found to be significant, F (2, 177) = 15.11, p < 0.001, and the model explained 9% more significant proportion of variance (ΔR^2 = .09, p < 0.001) amounting to a total 15% significant proportion of variance of vigor (*Adjusted* R^2 = .14). The results revealed that in Model 2 mindfulness (β = .16, p = 0.034) and perceived control of internal states (β = .31, p < 0.001) were found to be a significant predictors for vigor. In model 3, where demographic variables such as age, and years of service were entered in addition to mindfulness, and perceived control of internal states, was found to be significant, F (4, 175) = 9.23, p < 0.001. The model accounted for 3% more significant proportion of variance (ΔR^2 = .03, p = 0.05) amounting to total 18% significant proportion of variance of vigor (*Adjusted* R^2 = .16). From the analysis it was found that mindfulness (β = .15, p = 0.037) and perceived control of internal states were significant indicators (β = .29, p < 0.001) for vigor, in the model.

Table 2. Hierarchical Regression Analysis for Mindfulness, Perceived Control of Internal States, and Demographic Variables (age, marital status, and years of service) Predicting Work Engagement (N=180)

Model	B	SE	β	Adjusted R^2	R^2	ΔR^2
Model 1 (C =27.87, F=4.50*)				.02	.03	
Mindfulness	.43	.20	.16*			
Model 2 (C=13.79, F=12.75***)				.12	.13	.10***
Mindfulness	.16	.20	.06			
Perceived control of internal states	.35	.08	.33***			
Model 3 (C=10.96,F= 7.37***)				.15	.18	.05*
Mindfulness	.16	.20	.06			
Perceived control of internal states	.33	.08	.31***			
Age	.10	.17	.09			
Marital status	.44	1.72	.02			
Years of service	.16	.18	.13			

Note. C = Constant, B = Unstandardized beta coefficient, SE = Standard error, β = Standardized beta coefficient, ΔR^2 = R^2 change
*p < 0.05, **p < 0.01, ***p < 0.001

Table 4 presents the results when the significantly correlated predictors were entered hierarchically in two blocks—Block 1 (perceived control of internal states) and Block 2 (age, marital status, and years of service)—in respect of dedication. Model 1, consisting of perceived control of internal states was found to be significant, F (1, 178) = 16.09, p <0.001, which explained 8% significant proportion of variance of dedication (*Adjusted* R^2 = .08). Model 2, comprising demographic variables—age, marital status, and years of service—in addition to perceived control of internal states, was found to be significant, F (4, 175) = 7.19, p <0.001, and it explained 6% additional significant proportion of variance (ΔR^2 = .06, p = 0.009) amounting to a total of 14% significant proportion of variance (*Adjusted* R^2 = .12) of dedication. The result highlighted that only perceived control of internal states was a significant indicator (β = .27, p <0.001) for dedication, in the model.

According to Table 5, the significantly correlated predictors were entered hierarchically in two blocks—Block 1 (perceived control of internal states) and Block 2 (age, and years of service)—in respect of absorption. Model 1, consisting of perceived control of internal states was found to be significant, F (1, 178) = 11.92, p = 0.001, which explained a 6% significant proportion of the variance (*Adjusted* R^2 = .06) of absorption. The results revealed that perceived control of internal states was a significant predictor (β = .25, p = 0.001). Model 2, comprising demographic variables—age, and years of service—in addition to perceived control of internal states, was found to be significant, F (3, 176) = 5.76, p = 0.001. However, the model did not show any significant additional proportion of variance of absorption. The result highlighted that only perceived control of internal states was a significant indicator for dedication, in Model 1(β = .25, p = 0.001) and Model 2 (β = .24, p = 0.001).

Table 3. Hierarchical regression Analysis for Mindfulness, Perceived Control of Internal States, and Demographic Variables (age, and years of service) Predicting Vigor in Work Engagement

Model	B	SE	β	Adjusted R^2	R^2	ΔR^2
Model 1 (C=5.90, F=11.55***)				.06	.06	
Mindfulness	.26	.08	.25***			
Model 2 (C=0.96, F=15.11***)				.14	.15	.09***
Mindfulness	.16	.08	.16*			
Perceived control of internal states	.12	.03	.31***			
Model 3 (C= - 0.95, F= 9.23***)				.16	.17	.03*
Mindfulness	.16	.08	.15*			
Perceived control of internal states	.12	.03	.29***			
Age	.09	.06	.20			
Years of service	-.02	.07	-.04			

Note. C = Constant, B = Unstandardized beta coefficient, SE = Standard error, β = Standardized beta coefficient, ΔR^2 = R^2 change
*p<0.05, **p<0.01, ***p<0.001

Table 4. Hierarchical Regression Analysis for Perceived Control of Internal States, and Demographic Variables (age, marital status, and years of service), Predicting Dedication in Work Engagement

Model	B	SE	β	Adjusted R^2	R^2	ΔR^2
Model 1 (C=5.41, F=16.09***)				.08	.08	
Perceived control of internal states	.14	.03	.29***			
Model 2 (C=4.95; F= 7.19***)				.12	.14	.06**
Perceived control of internal states	.13	.03	.27***			
Age	.01	.08	.01			
Marital status	.50	.77	.06			
Years of service	.11	.08	.20			

Note. C = Constant, B = Unstandardized beta coefficient, SE = Standard error, β = Standardized beta coefficient, ΔR^2 = R^2 change
*p<0.05, **p<0.01, ***p<0.001

Table 5. Hierarchical Regression Analysis for Perceived Control of Internal States and Demographic Variables (age, and years of service) Predicting Absorption in Work Engagement

Model	B	SE	β	Adjusted R^2	R^2	ΔR^2
Model 1 (C = 7.31 ; F=11.92***)				.06	.06	
Perceived control of internal states	.09	.03	.25***			
Model 2 (C=7.04; F= 5.76***)				.07	.09	.03
Perceived control of internal states	.09	.03	.24***			
Age	.002	.06	.01			
Years of service	.07	.07	.16			

Note: C = Constant, B = Unstandardized beta coefficient, SE = Standard error, β = Standardized beta coefficient, ΔR^2 = R^2 change
*p<0.05, **p<0.01, ***p<0.001

Discussion

This study was aimed to investigate whether mindfulness and perceived control of internal states, and other demographic variables are indicators of work engagement or not.

The correlation analysis using Pearson's *r* confirmed the positive relationship between the criterions and predictors. It shows that with an increase in mindfulness and increase in perceived control of internal states, there is an increase in work engagement. Mindful individuals are 'psychologically present' [24] requiring a high level of perception of control over internal states. On the other hand, mindfulness allows re-perception—affecting an individual's perceived control of internal states [13, 25] or novelty in experiencing events that keep the individual alert, active and immersed in the activity—hinting in an increase in work engagement. Contrarily, mindfulness was not associated with the dimension of absorption. On the other hand, perceived control of internal states showed a positive relationship with the subset of absorption. This is an interesting finding as it helps to understand that mindfulness is a redirection of the orientation of the consciousness to current situations but the quality of absorption would not allow a quick change in the course of action as it requires the individual to be immersed in the activity [26]. More so, such rapid rerouting is possible when one has good control over one's internal states. Similarly, dedication in work engagement is attributed to pride and a sense of accomplishment in the work, but the trait of mindfulness demands detachment and non-superficial awareness of the task.

To address the objective of the study, the major indicators of work engagement were identified. Out of the six predictors under study, five predictors—mindfulness, and perceived control of internal states, along with three demographic variables (age, marital status, and years of service)—were found to be significantly correlated with employee's work engagement. Mindfulness was found to be a significant predictor when it was considered solely as an indicator of work engagement. It is corroborated by Malinowski and Lim's [27] study which found that dispositional mindfulness was linked to work engagement. The quality of mindfulness allows one to focus attention and awareness towards the task at hand, thus enhancing involvement in work. In this study, when other predictors were taken into account, perceived control of internal states was found be a dominant indicator of work engagement across the models. Therefore, mindfulness and perceived control of internal states are considered as indicators of work engagement, fulfilling the objective of the study.

In case of vigor in work engagement, two—mindfulness, and perceived control of internal states—were found to be significant indicators. However, in case of dedication and absorption, perceived control of internal states was found to be the sole significant indicator. Having a high level of perceived control of internal states, an individual will have a higher level of self-endorsed regulation of perceptual qualities and behavioral modification. It will also facilitate effective coping and manage excessive emotions - such as anger, hostility, fear that clouds clear thinking and effective problem solving [28], thus providing a pathway in the enhancement of mindfulness practice and naturally increase involvement in work.

Conclusion

The study fulfilled its objective to state that mindfulness was a significant predictor when it was considered solely as an indicator of work engagement. Nevertheless when other predictors were considered, perceived control of internal states was found to be a dominant indicator of work engagement across the models.

Certain limitations of this study must be kept in mind while evaluating the findings. Firstly, this study may not be generalized widely due to its small sample size and purposive sampling technique. Secondly, self-report questionnaires may contribute to inflated responses. Nevertheless, the findings of the study indicate the need for intervention programs that improve perceived control of internal states so that employees' efficiency is reflected on their level of work engagement. While appreciating the effectiveness of practice of mindfulness and strategies to enhance perceived control of internal states, it is encouraged to investigate studies examining the role of various underlying emotional, cognitive and social factors affecting work engagement.

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