

21st International Scientific Conference Economics and Management

MINDFULNESS, JOB SATISFACTION AND JOB PERFORMANCE: MUTUAL RELATIONSHIPS AND MODERATION EFFECT

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Abstract

Purpose of the article This article examines the relationship between mindfulness, job satisfaction and job performance.

Methodology/methods We used a self-report job performance questionnaire, a job satisfaction scale from the Job Diagnostic Survey and the Czech version of the Five Facet Mindfulness Questionnaire. We excluded 8 items from the Five Facet Mindfulness Questionnaire Observing subscale following suggestions of other authors who measured mindfulness in a population without meditation experience. The sample consists of 241 Czech employees. We did not focus on employees with an experience with mindfulness training and/or meditation.

Scientific aim We examined the mutual relationships between all three variables while specifically focusing on mindfulness as a possible moderator in the relationship between job satisfaction and job performance. We also controlled the influence of neuroticism (NEO-FFI), job dynamicity and respondents' sex.

Findings Job dynamicity, neuroticism and sex were weak predictors of job performance. Mindfulness had weak positive effect on job performance, too. However, mindfulness did not help to explain the variance in job performance beyond neuroticism, job dynamicity and sex. Mindfulness also had no relationship to job satisfaction. We did not find a significant relationship between job satisfaction and job performance and results did not support the hypothesis that mindfulness was a moderator of the relationship between job satisfaction and job performance.

Conclusions We extrapolate our findings to reflect on a potential utility of mindfulness training. For further research we would suggest exploring the relationship between mindfulness and job performance in an experiment using mindfulness training for individuals with a high level of neuroticism.

Keywords: mindfulness, job performance, job satisfaction, dynamicity, neuroticism

JEL Classification: M12, M59

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Introduction

The concept of mindfulness has increasingly received more attention throughout the past decades particularly in clinical psychology (Hülshager, Alberts, Feinholdt, & Lang, 2013). A substantial body of research that has been accumulated suggests that mindfulness has salutary effects on a range of outcomes such as well-being, life satisfaction, vitality and levels of anxiety and chronic pain (Brown, Ryan, & Creswell, 2007; Eberth & Sedlmeier, 2012; Keng, Smoski, & Robins, 2011). That gradually led organizational scholars to start exploring the concept of mindfulness at the workplace resulting in a recently growing body of studies in that setting (Hülshager et al., 2013; Reb, Narayanan, & Ho, 2015; Vich, 2015).

Mindfulness is originally a concept stemming from Buddhist philosophy and religious practices. However, the concept has been secularized during its adoption into mainstream psychology thinking and interventions (Dhiman, 2009; Fortney, Luchterhand, Zakletskaia, Zgierska, & Rakel, 2013). Although a clear conceptual definition of mindfulness has been somewhat elusive, it can be defined as a receptive attention to and awareness of present events and experience (Good et al, 2015). Baer, Smith, Hopkins, Krietemeyer, & Toney (2006) describe mindfulness as a hierarchical construct with five facets pertaining to observing, describing, acting with awareness, non-judging and non-reacting.

Mindfulness has a trait-like character and is usually measured by self-reports. Simultaneously, mindfulness can be also viewed to have a state-like characteristic. However, both trait and state aspects of mindfulness were shown to have similar relations to other concepts (Glomb, Duffy, Bono, & Yang, 2011; Weinstein, Brown, & Ryan, 2009).

Mindfulness can be trained and developed by mental training commonly referred as meditation (Fortney et al., 2013). Such training have been shown to have long-term effects on levels of mindfulness of participants (Dhiman, 2009; Visted, Vøllestad, Nielsen, & Nielsen, 2015). The increasing proliferation of mindfulness training is among the main reasons driving the importance of research on the topic (Baer, 2003).

Organisational scholars have started to pay more attention to mindfulness in management research in the past 5 years. This study contributes to emerging body of research focusing on the relationship between mindfulness, job satisfaction and job performance.

1.1 Mindfulness and Job Satisfaction

According to several recent studies, mindfulness of employees is weakly positively connected to their job satisfaction (Andrews, Kacmar, & Kacmar, 2014; Hülshager et al., 2013; Charoensukmongkol, 2014; Reb et al., 2015). Furthermore, a qualitative study by Foureur and colleagues (Foureur, Besley, Burton, Yu, & Crisp, 2013) showed that it is possible to positively influence the level of job satisfaction and perceived stress by mindfulness training. Such interventions are also helpful for individuals with severe symptoms. A study of previously diagnosed workers found that after mindfulness training, majority of them were no longer in the clinical range on the scales of depression, stress and anxieties that were occupationally related (Gold et al., 2010).

The perception of stress is important for explaining the relationship between mindfulness and job satisfaction. Mindful individuals perceive situations as less stressful, generally report fewer stressors and act in a less-stressed way than less mindful individuals (Foureur et al., 2013; Gold et al., 2010; Weinstein et al., 2009). Weinstein and colleagues found that (2009) once put into challenging situation, more mindful people tend to stay more objective and use adaptive coping strategies over the avoidance coping strategies. Therefore, they generally experience more positive than negative emotional reactions (Hülshager et al., 2013; Kiken & Shook, 2011). Furthermore, mindful people use more effective stress regulation behaviour not only in specific threatening situations but also in common everyday activities (Weinstein et al., 2009).

The relationship between mindfulness and job satisfaction can be also explained by interpersonal relationships. More mindful individuals tend to be more accepting and empathic which can lead to better workplace relationships (Epstein et al., 2015; Glomb et al., 2011). They tend to pay more attention to the environment and put decreased emphasis on possible negative evaluations that others can have of them. Furthermore, they avoid comparing themselves to others in negative demoralizing way (Carson & Langer, 2006) and at the same time they are more effective in using social support (Glomb et al., 2011). This can contribute to higher quality relationships with co-workers (Charoensukmongkol, 2014).

Emotional awareness can also help to explain the relationship between mindfulness and job satisfaction. Emotional awareness correlates strongly with job satisfaction (Weng et al., 2011). It was argued that higher levels of mindfulness are connected with less negative emotions and better mood at work leading to higher satisfaction levels and higher job enjoyment (Glomb et al., 2011; Hunter & McCormick 2008).

To sum up, we can posit that the contemporary research supports the existence of a positive relationship between mindfulness and job satisfaction. However, there is only a few studies directly investigating this relationship. More studies are needed to further research various aspects of this relationship and to provide more robust evidence for its existence.

H1: Mindfulness has a positive relationship with job satisfaction.

1.2 Mindfulness and Job Performance

Several recent studies brought evidence regarding a small positive relationship between mindfulness of employees and their job performance (Dane & Brummel, 2013; Reb et al., 2015). More mindful individuals seem to be more productive at work. This relationship can be also explained through various mechanisms.

The first mechanism for the positive relation is better control and stability of attention. Individuals with higher levels of mindfulness focus more easily on their work and complete tasks more effectively than those with lower levels of mindfulness (Good et al., 2015, Mrazek et al., 2014). Mindful people are more capable of keeping wide breadth of attention and simultaneously paying attention to details which leads to quick detection of possible issues and early problem management (Good et al., 2015). Mindful individuals thus make less mistakes and cause less unsafe situations (Andrews et al., 2014; Schmertz, Anderson, & Robins, 2009; Zhang & Wu, 2014). Better attentional control and stability also helps to handle distracting thoughts that are a sign of absent minded behaviour which leads to decreased work performance. This kind of behaviour is characterised by mind-wandering during a task (Brown & Ryan, 2003; Reb et al., 2015; Mrazek et al., 2014).

Another mechanism explaining the relationship between job performance and mindfulness is improved decision making. Mindfulness facilitates a thoughtful decision process that is characterized by suppressing impulsivity and deeply considering the situation before giving a response. It is also facilitates awareness of multiple perspectives and speed of their processing which leads to better problem solving skills (Glomb et al., 2011; Langer, 1989). Moreover, mindfulness facilitates implementation of plans and intentions into real practise which leads to more achieved work goals (Chatzisarantis & Hagger, 2007; Reb et al., 2015).

Recently emerged research supports the existence of a positive relationship between mindfulness and job performance. However, there is only a handful of studies directly investigating this relationship which warrants further study of various aspects of the relationship if robust conclusions are to be drawn.

H2: Mindfulness has a positive relationship with job performance.

Attention to details and its wide breadth, better problem solving and avoiding mistakes might indicate that mindfulness is more connected to job performance in dynamic work environments that are more fast-paced, stressful and complex-task oriented. In such dynamic environments mindfulness is positively connected to performance (Dane & Brummel, 2013). Based on these results, the dynamicity of a job will be controlled in this research.

1.3. Mindfulness and Relationship between Job Satisfaction and Job Performance

Even after decades of research, the relationship between job satisfaction and job performance is unclear. There are several theories providing different explanations of this relationship. Seven basic models were identified but neither one of them is considered to represent a consensual understanding (Judge, Thoresen, Bono, & Patton, 2001).

Several meta-analytic studies focused on the relationship between job performance and job satisfaction. In their meta-analyses, Petty, Mcgee and Cavender (1984) found an average correlation of $r = .31$, and Judge and colleagues (2001) found an average correlation of $r = .30$. However, the results of individual studies were ranging from $r = .04$ to $r = .86$ (Judge et al., 2001; Petty, Mcgee, & Cavender, 1984) which warrants consideration of moderators that can influence the relationship between job satisfaction and job performance. Moderators that were addressed in previous studies include rewards, salary, job complexity or self-esteem. Studies focusing on these moderators had mixed results with only some of them yielding significant results (Judge et al., 2001). We assume that mindfulness can act as another moderator in the relationship between job satisfaction and job performance. As described earlier, there is emerging evidence that mindfulness is positively related to job satisfaction and job performance. However, these relationships seem to be small and they do not preclude a possible moderating effect of mindfulness. We suggest that mindful people are more focused on their work tasks and are less distracted by their emotions and beliefs about the job and thus their performance is less affected by attitudes such as job satisfaction.

H3: Mindfulness moderates the relationship between job satisfaction and job performance. The relationship between job satisfaction and job performance is weaker in people with a high level of mindfulness.

According to previous research there is a strong negative correlation between mindfulness and neuroticism (Brown & Ryan, 2003; Giluk, 2009). In a study by Brown and Ryan (2003), notable reductions in correlations of mindfulness to other variables occurred when neuroticism was controlled. Therefore, it can be assumed that some part of mindfulness variance can be explained through neuroticism (Giluk, 2009). To aid interpretation of the results of our study, we decided to control the effect of neuroticism.

2 Method

A total sample of 241 people participated in the study. We recruited respondents via Facebook and e-mail invitations and asked them to fill in an online questionnaire. Being a working adult was the only condition for participation. The age of respondents ranged from 18 to 65 ($M = 34$; $SD = 10.9$). 46 respondents had a part-time job and 195 had a full-time job. Women ($N = 157$) prevailed. Not all the participants filled in the entire questionnaire which led to various sample sizes in different analyses.

2.1 Measures

We measured job satisfaction using the General Satisfaction scale from the Czech version of the Job Diagnostic Survey (short form; Hackman & Oldham, 1974). The scale consists of 3 items with a 7-point response scale (strongly disagree – strongly agree) with higher scores indicating higher satisfaction.

For job performance measurement, we developed a new self-report inventory. An expert panel of three authors of this study created the inventory to include various aspects of job performance. We piloted the inventory on a sample of young adults. The inventory consists of 9 items with a 5-point response scale (strongly agree – strongly disagree) with higher scores indicating higher performance. The sample item is “I am able to meet objectives in my job”. The complete inventory is available on request from the authors. We present the analyses proving internal consistency and factor validity of the inventory in the results section of this study.

We measured mindfulness using the Czech version of the Five Facet Mindfulness Questionnaire (Baer et al., 2006; Žitník, 2010). It consists of 39 items with a 5-point response scale (strongly disagree-strongly agree). The scale is divided into 5 subscales: observing, describing, acting with awareness, non-judging of experience and non-reactivity to inner experience (Baer et al., 2006). We computed mindfulness as an average of answers to 31 items in the questionnaire. We excluded 8 items from the observing subscale following suggestions of other authors who measured mindfulness in a population without meditation experience (e.g. Malinowski & Lim, 2015).

We used the Czech version of the Neo Five-Factor Inventory to measure neuroticism (Hřebíčková & Urbánek, 2001). The neuroticism subscale consists of 12 items with a 5-point response scale (strongly agree – strongly disagree). At the end of the questionnaire we asked respondents about demographic characteristics (sex, age, full-time/part-time job) and dynamicity of their job (1 question, 10-point scale, 1 = I do routine tasks that repeat all the time and there is no need of innovative solutions, 10 = every day there is something new, I have to react on new and unexpected situations that need innovative solutions).

3 Results

We conducted an exploratory factor analysis on all items of the job performance inventory. The Kaiser-Meyer-Olkin measure verified the sampling adequacy for the analysis, $KMO = 0.84$. Bartlett's test of sphericity ($\chi^2(36) = 701.19$, $p < .001$) indicated that correlations between items were sufficiently large. In the analysis, just one main factor was found that was loaded by all 9 items.

Table 1 presents descriptive statistics of all study variables. Surprisingly, there was no relationship between job satisfaction and job performance. Neuroticism and job dynamicity correlated weakly with job performance, job satisfaction and mindfulness and we included them in all analyses to control their influence. We also added respondents' sex into analyses to control its influence.

Table 1 Descriptive statistics and correlations among variables

	<i>N</i>	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
1. Job performance	236	3.84	0.62	(.83)					
2. Job satisfaction	241	5.19	1.34	.10	(.82)				
3. Mindfulness	219	3.42	0.48	.23**	.05	(.88)			
4. Mindfulness-5F	219	3.36	0.42	.22**	.07	.93**	(.86)		
5. Neuroticism	241	2.56	0.63	-.28**	-.21**	-.56**	-.50**	(.76)	
6. Job dynamicity	239	7.23	2.16	.18**	.25**	.17*	.18**	-.06	
7. Male / Female	241			.06	-.02	-.06	.02	.27**	-.03

Notes: ** $p < .01$; * $p < .05$; the Cronbach's α are on diagonal in parentheses; Mindfulness-5 = Mindfulness with 5 facets including "Observe"; Male / Female 1 = male, 2 = female.

As shown in table 1, mindfulness did not correlate with job satisfaction. We performed regression analysis to control the effect of neuroticism, job dynamicity and sex. None of these variables suppressed the effect of mindfulness on job satisfaction and adding mindfulness into the regression model did not help to explain the variance in job satisfaction (see table 2). Thus we did not find support for Hypothesis 1 that mindfulness had a positive relationship with job satisfaction.

On the other hand, mindfulness correlated positively with job performance (see table 1). This supports Hypothesis 2. However, mindfulness did not help to explain the variance in job performance beyond the variance explained by neuroticism, job dynamicity and sex. Adding mindfulness into the model with neuroticism, job dynamicity and sex did not improve the model and mindfulness itself was not a significant predictor of job performance (see table 2).

Table 2 Regression of job satisfaction on mindfulness and job performance on mindfulness

		DV = job satisfaction				DV = job performance			
		<i>B</i>	<i>S.E.</i>	β	ΔR^2	<i>B</i>	<i>S.E.</i>	β	ΔR^2
1. step	(Constant)	4.89	.52			3.83	.22		.14**
	Job dynamicity	.16**	.04	.25	.09**	0.05**	.02	.20	
	Neuroticism	-.40**	.15	-.18		-0.30**	.06	-.32	
	Male/Female	.11	.20	.04		0.23**	.08	.18	
2. step	(Constant)	6.46	1.08			3.60	.46		.00
	Job dynamicity	.17**	.04	.27	.01	0.05**	.02	.19	
	Neuroticism	-.57**	.18	-.27		-0.27**	.08	-.29	
	Male/Female	.16	.20	.05		0.22**	.09	.18	
	Mindfulness	-.38	.23	-.13		0.06	.10	.05	

Note. ** $p < .01$.

We tested Hypothesis 3 using a moderation analysis. We included all the controlled variables into the first step of regression analysis. We added job satisfaction and mindfulness into the second step and their interaction into the third step. The interaction of mindfulness and job satisfaction did not improve the model and was not significant as a predictor of job performance (see Table 3). Therefore, we did not find a support for Hypothesis 3 that mindfulness moderates relation between job satisfaction and job performance.

Table 3 Mindfulness as moderator in relationship between job satisfaction and job performance

		<i>B</i>	<i>S.E.</i>	β	ΔR^2
1. step	(Constant)	3.83	.22		
	Job dynamicity	0.05**	.02	.20	.14**
	Neuroticism	-0.30**	.06	-.32	
	Male/Female	0.23**	.08	.18	
2. step	(Constant)	3.64	.50		
	Job dynamicity	0.05**	.02	.19	.00
	Neuroticism	-0.03**	.08	-.29	
	Male/Female	0.22**	.09	.18	
	Job satisfaction	-0.01	.03	-.01	
	Mindfulness	0.05	.10	.04	
3. step	(Constant)	5.53	1.16		
	Job dynamicity	0.06**	.02	.20	.01
	Neuroticism	-.28**	.08	-.30	
	Male/Female	.23**	.09	.19	
	Job satisfaction	-0.37	.21	-.86	
	Mindfulness	-.50	.33	-.41	
	Job satisfaction * Mindfulness	.11	.06	.98	

Note. ** $p < .01$.

4 Discussion

The aim of this research was to explain the relation between mindfulness, job satisfaction and job performance. Our results suggest that mindful people are not more satisfied with their job but they have higher job performance than less mindful people. However, the level of mindfulness does not predict job performance beyond neuroticism, job dynamicity and sex. Furthermore, mindfulness does not moderate the relationship between job satisfaction and job performance. This relationship is similar in people with various levels of mindfulness.

Our study complements recent studies that found a positive relationship between mindfulness and job performance (Dane & Brummel, 2013; Reb et al, 2015). Similarly to Giluk (2009), we found a strong negative relationship between mindfulness and neuroticism. It seems that in populations without meditation experience, people with a lower level of neuroticism have also a higher level of mindfulness and that is why they perform better. Therefore, it is important to study mindfulness in non-meditating population in the context of neuroticism and it is reasonable to consider mindfulness as a mediator of the relationship between neuroticism and job performance. High neuroticism might lead to a diminished ability pay present attention to the tasks at hand leading to lower job performance.

Contrary to the previous research (Andrews et al., 2014; Charoensukmongkol, 2014), we did not find support for the existence of a positive relationship between mindfulness and job satisfaction. This result has more possible explanations. There may be a certain level of unsatisfactory work conditions that even mindfulness cannot mitigate. On the other hand, less mindful people may be satisfied in really good job positions without the presence of any supporting mechanisms. The results of our study may also differ from recent studies due to sample characteristics. Descriptive statistics of our sample show that respondents scoring close to the upper end of the job satisfaction scale prevailed. It is possible that our sample included generally satisfied employees which would impede studying differences between people with high and low job satisfaction. However, the job satisfaction scale used in this study does not have standardized norms which prevents assessing the level of job satisfaction in the sample.

To explain the relationship between job satisfaction and job performance (for a review, see Judge et al., 2001) we proposed mindfulness as a moderator. However, we did not find a relationship between job satisfaction and job performance neither in the complete sample nor in respondents with a certain level of mindfulness. Unsatisfied employees with a high level of mindfulness are affected by a low level of job satisfaction similarly to employees with a low level of mindfulness. It is possible that employees with a high level of mindfulness are not motivated to use their mindfulness to focus on their work when unsatisfied with their job and therefore their low satisfaction affects their performance comparably to their less mindful colleagues.

The methods used for collecting data should be considered when interpreting our results. For mindfulness measurement, we used a multi-facet questionnaire that assesses various aspects of mindfulness. Previous studies used one-dimensional scales. For measuring job performance, we have chosen self-report questionnaire, whereas other studies mainly used managerial reports or objective performance criteria. Self-reports may be biased. However, the managerial reports may be equally biased and objective criteria may be influenced by various external factors. Although self-reports have possible limitations in terms of actual job performance, they reflect how employees feel about their performance. Moreover, the self-report measure allowed us to include employees with various jobs to our sample.

Conclusion

One of the goals of our study was to describe the role and impact of mindfulness at workplace. Such goal is warranted in the light of increasing proliferation and popularity of mindfulness training programs which overshadow a relative lack of evidence supporting them (Kelly, 2012; Hansen, 2012). The study provides indirect support for mindfulness training as a tool to increase employee performance. For further research we would recommend a study with a long-term experimental design which would assess changes in job performance of participants with a high level of neuroticism who attend mindfulness training. Such training should increase participants' trait mindfulness more than their trait neuroticism which should allow for investigating the effect of mindfulness on performance beyond the effect of neuroticism (compare Vibe et al., 2013). We also recommend to measure job performance using various objective and subjective criteria. It would be meaningful to simultaneously use self-reports of job performance and objective performance criteria and analyse how they are differently impacted by mindfulness.

Acknowledgement

This article was created as a part of the research project "Transformational leadership, job satisfaction and job performance". The project belongs to specific research at the Masaryk University, Brno.

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