

Research Report

Improving Job Performance in Mobile Work Environments through Mindful Organizing

ORGANIZATIONAL MINDFULNESS (OM) SUPPORTS THE MANAGEMENT AND EMPLOYEES WORKING IN THE INCREASINGLY DYNAMIC WORK ENVIRONMENTS DRIVEN BY CLOUD COMPUTING OR MOBILE DEVICES. SPECIFICALLY, IN MINDFUL ORGANIZATIONS, SUCH AS FINANCIAL INSTITUTIONS, RELIABLE OUTCOMES ARISE FROM OM IN THE FACE OF COMPLEX INFORMATION SYSTEMS. HOWEVER, EXTANT IS RESEARCH HAS DISREGARDED THE MULTILEVEL STRUCTURE OF MINDFULNESS, ESPECIALLY THE IMPORTANCE OF MINDFUL ORGANIZING (MO) ON LOWER HIERARCHICAL LEVELS. BASED ON DATA FROM 256 USERS OF AN ORGANIZATION WIDE CLOUD-BASED DESKTOP-AS-A-SERVICE SYSTEM, WE FOUND A SIGNIFICANTLY POSITIVE INFLUENCE OF THE COMBINATION OF OM AND MO AS WELL AS DIFFERENTIAL EFFECTS FOR BOTH ON JOB PERFORMANCE.

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Introduction

Equipped with the necessary technologies for working independently from location, office hours, and devices, by 2015 the mobile workforce will represent almost forty percent of the world's working population. Especially in the dynamic financial services sector, organizations and employees are requested to work independently from time and place. Hereby, today's information technology (IT) industry carries out a profound shift towards a level of

technology that is characterized by mobile devices, apps and cloud services. As a consequence, management and employees using these mobile technologies are confronted with increasingly decoupled working structures entailing requirements regarding their capabilities in mobile work, e.g., the decrease in the exchange of informal information due to a decline in face-to-face communication or globally distributed teams requiring a high degree of freedom to organize their work (Beck et al.,

2011). One potential starting point to integrate these increasingly loose ties and to cope with the dynamic work environment is organizational mindfulness (OM) (Beck et al., 2011). Essentially, OM is reflected by cognitive processes within an organization of revealing and redirecting new events and their consequences. Specifically, mindfulness can contribute to handling the challenges of dynamic work by improving an employee's cognitive flexibility or by coping with the fading boundaries of an office environment through building situational awareness. As prior research has shown in a dynamic service industry context, mindfulness can increase job performance.

Existing studies on OM were conducted among top level managers and senior IT decision makers, such as CEOs, CIOs, or managing directors, while others investigated OM across project participants, such as project managers, developers, project team members and users. What is missing is a differentiation between the effects of OM depending on the hierarchical level of analysis. Thus, we argue for a more nuanced view regarding OM in IS research. Hereby, we understand OM as top-down processes in which leaders facilitate an enduring, mindful environment. In contrast, Mindful Organizing (MO) reflects the bottom-up processes, which emerge among employees who think and act in this work environment (Vogus and Sutcliffe, 2012). To investigate this assumption we study the distinguishable effects of OM and MO on job performance depending on the hierarchical level of employees in a Desktop-as-a-Service (DaaS) enabled mobile work environment.

Theoretical Background

The concept of mindfulness was initially established by Langer (1989) at the individual level. As a cognitive state of dynamic, rich awareness, mindfulness is based on continuously creating new categories, responsiveness to new information, and examining a perspective from multiple views. Primarily drawing on high-reliability organizations (e.g., nuclear power plants or aircraft carriers) mindfulness was transferred to the organizational level. Due to the criticality of errors and their consequences in highly reliable organizations, learning by trial and error is intolerable. In essence, instead of grounding their reliability on highly standardized routines, researchers argue that the reliability of organizations exhibiting mindfulness results from the stability in the cognitive processes of revealing and redirecting new events and their erroneous consequences. Mindfulness is generally characterized by five cognitive processes which can be subsumed under an organization's capability to discover and manage unexpected events: (1) preoccupation with failure, (2) reluctance to simplify interpretations, (3) sensitivity to operations, (4) commitment to resilience, and (5) underspecification of structures/deference to expertise.

Vogus and Sutcliffe (2012) reconcile extant literature on OM and elaborate on MO at a distinct hierarchical level of analysis. In so doing, they emphasize that a multi-hierarchical analysis is inevitable for an organizational phenomenon, such as OM, although prior research has focused on one hierarchical level

at a time only. In particular, OM evolves from top-down processes in which leaders facilitate an enduring environment for thinking and taking actions, subsequently leading to strategic outcomes. On the contrary, MO as bottom-up processes can be allocated at the employees' level (also described as frontline level by Vogus and Sutcliffe (2012)), resulting in operational outcomes. Moreover, MO emerges from ongoing interactions among individuals and collectives as a dynamic, social process rather than being inherent to them. In this dyadic relationship, middle management serves as catalyst, translating and channeling OM to MO and vice versa. Accordingly, despite analyzing isolated hierarchical levels, research on mindfulness requires an integrative view across all organizational levels. Thus, we analyze the

combined effectiveness (H1) and distinct impacts of OM (H2) and MO (H3) measured on different hierarchical levels on job performance (see Figure 1).

Empirical Study – Mindfulness in a DaaS working environment

We conducted a survey among 256 users of a DaaS system implemented in a German State Ministry of Justice in April 2013. As “reliability seeking” public organizations in an interactive complex environment, legal executive agencies have to avoid serious negative ramifications of errors when providing services to citizens. In essence, DaaS encompasses users remotely accessing a virtualized desktop environment via devices such as thin clients, whereas the data is centrally processed in a data center or cloud.

Analysis and Results

We conducted a linear stepwise regression to simultaneously test for the combined and distinct effects of OM and MO in the light of our categorical hierarchy. Supporting hypothesis 1, the combination of OM and MO explains a total of 21.3% of job performance variance ($F_{8,230,0.05} = 5.76, p < .01$). In line with hypothesis 2, we find a positive effect of top management OM on job performance that accounts for 3.9% of performance variance ($F_{8,230,0.05} = 3.03, p < .01$). As predicted by hypothesis 3, employees' MO also has significant explanatory power of job performance (17.4% of explained variance) ($F_{8,230,0.05} = 9.23, p < .01$).

Conclusion

Grounded on questionnaire-based data collected from 256 users of an organization-wide DaaS environment, we conducted a multivariate stepwise regression. As a result, all our hypotheses were supported substantiating that (1) mindfulness contributes to achieving reliable, performant outcomes in a mobile work environment and (2) mindfulness should be differentiated by distinct hierarchical levels. Specifically, we found evidence that OM on the top-management level and MO on the employee level differentiated from each other have a positive significant influence on job performance related to DaaS use. Moreover, we demonstrated a highly significant positive influence of the combination of both constructs on job performance among users of DaaS.

Our study provides evidence that mindfulness is an efficient concept to overcome the obsta-

cles of mobile work environments such as fading boundaries of time and place on management and likewise employee level. Therefore, organizations should not only establish mindfulness at top management level, e.g., for making decisions on IT innovations. Specifically, top management in turn should also endeavor in creating an environment of mindfully thinking and acting when using mobile IS at the employee level. Specifically, this could be done by implementing a feedback loop between the employees and the management. Employees at the frontline are more knowledgeable about the state of the system and can detect failures, while the management has the necessary discretionary competence to initiate appropriate measures.

References

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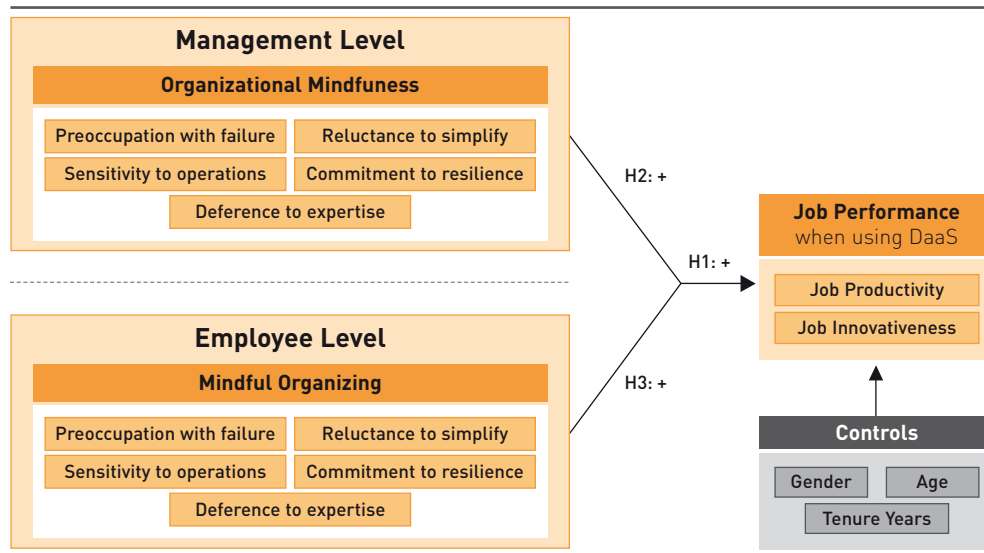


Figure 1: Research model for studying the effect of OM and MO on job performance