

VU Research Portal

Work engagement as a key for unlocking performance

Gutermann, D.

2018

document version

Publisher's PDF, also known as Version of record

[Link to publication in VU Research Portal](#)

citation for published version (APA)

Gutermann, D. (2018). *Work engagement as a key for unlocking performance: An investigation across different organizational levels.*

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal ?

Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

E-mail address:

vuresearchportal.ub@vu.nl

CHAPTER 5

ORGANIZATIONAL WORK ENGAGEMENT AS A KEY TO ORGANIZATIONAL PERFORMANCE

ABSTRACT

Individual work engagement has been heralded for its manifold positive individual outcomes. However, few studies have investigated work engagement at the level of entire organizations, which is an important oversight given its potential relevance for organizational functioning. To address this research gap, we examined whether organization-level engagement was able to predict objective organizational performance of employment agencies, in terms of customer satisfaction and employee placement success. To investigate longitudinal patterns and test causal directions, we collected organization-wide data at two time points with an interval of one year. Our sample included 29,997 employees at t1 and 27,472 employees at t2, belonging to 156 organizations. Cross-lagged path modeling revealed that organizational engagement meaningfully predicted organizational-level customer satisfaction as well as placement success. The findings furthermore indicated that organizational engagement predicted organizational performance, and not the other way around. Our findings contribute to the theory and nomological network surrounding work engagement by conceptualizing it as an organizational construct and demonstrating its importance for organizational performance. Moreover, our findings provide insights into the causality between organization-wide engagement and performance in a time-lagged design. Our results suggest fostering an organization-wide work engagement climate in order to promote organizational performance.

Keywords:

Organizational work engagement; organizational performance; cross-lagged path modeling

INTRODUCTION

Organizations depend on employees who deploy their whole capacity and willingness to work, who identify with the company's vision, and who work according to the organization's goals in order to face current organizational challenges (e.g., Gruman & Saks, 2011). At the level of individual employees, work engagement is associated with numerous positive outcomes, such as enhanced innovative work behavior, commitment, reduced turnover intentions, and performance (e.g., Agarwal, Datta, Blake-Beard, & Bhargava, 2012; Gutermann, Lehmann-Willenbrock, Boer, Born, & Voelpel, 2017; Halbesleben, 2010; Rich, LePine, & Crawford, 2010). These relationships between individual work engagement and the various positive attitudes and behaviors of employees suggest that work engagement may be an important competitive advantage for organizations.

Two prominent definitions of *work engagement* appear in the literature. Schaufeli, Salanova, Gonzalez-Roma, and Bakker (2002) define work engagement as a positive, fulfilling, work-related state of mind (see also Breevaart et al., 2014; Tims, Bakker, & Xanthopoulou, 2011). Kahn (1990) defines work engagement in a more *behavioral* manner by understanding it as employees' willingness to fully invest themselves in their work roles – physically, cognitively, and emotionally (see also Barrick, Thurgood, Smith, & Courtright, 2015; Harter, Schmidt, & Hayes, 2002; Peccei, 2013; Rich, Lepine, & Crawford, 2010). Despite these definitional distinctions, both conceptualizations of work engagement share common ground by regarding engagement as a valuable construct that involves employees' energy, enthusiasm, and focused effort (Macey & Schneider, 2008) that may benefit performance (e.g., Halbesleben & Wheeler, 2008; Rich, LePine, & Crawford, 2010). Given the many advantages of individual work engagement, Gruman and Saks (2011) have argued that a focus on fostering employee engagement can be an important means for

enhancing the performance management process in entire organizations. However, the vast majority of previous research on work engagement has been conducted at the individual level (Pugh & Dietz, 2008), and there has been little research on work engagement and performance at the organizational level. Whereas several prior studies have shown that individual work engagement relates to employees' individual-level performance (e.g., Halbesleben & Wheeler, 2008; Rich, LePine, & Crawford, 2010), to date there are only two studies on work engagement and performance outcomes at the level of larger social units in organizations (Harter, Schmidt, & Hayes, 2002; Salanova, Agut, & Peiro, 2005). There is only one prior study on collective engagement (Barrick et al., 2015), which term refers to the organizational level, showing relations between organizational sub-sample engagement and organizational performance. We seek to expand these findings by introducing the term *organizational engagement* and showing its causal relationship with organizational performance, which has, to the best of our knowledge, not been done before. As such, we address scholarly calls to investigate work engagement at the organizational level and its relationship to organizational performance while considering causality issues (Barrick et al., 2015; Demerouti & Cropanzano, 2010; Harter et al., 2002; Peccei, 2013; Salanova et al., 2005; Vance, 2006).

To derive arguments toward work engagement as a broader organizational construct, we draw from crossover theory as well as from the concept of corporate culture. Crossover theory maintains that persons who interact with one another will transfer their behaviors and states to each other (e.g., Westman, 2001). For the context of work engagement, crossover theory suggests that engagement can spread in social contexts, perhaps "infecting" entire units or organizations as a whole. Indeed, previous research suggests that work engagement may cross over from leaders to followers or among members of the same team (Bakker, Van

Emmerik, & Euwema, 2006; Gutermann et al., 2017). Hence, over time, employees in the same organization may develop similar levels of engagement.

Similarly, the idea of corporate culture suggests that engagement is not only an intrapersonal attribute, but can rather be shared and spread throughout an organization. Corporate culture is defined as a set of shared norms and values within an organization (O'Reilly & Chatman, 1996). Employees in the same organization develop shared attitudes because they work in a shared environment, which has implications for work engagement as a particular type of attitude as well. Employees working in the same organization may develop a shared culture of work engagement because they experience the same leadership, demands, and resources in their organization (Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007).

Conceptualizing engagement as a construct at the organizational level requires a consideration of organization-level outcomes of engagement as well. Organizational-level performance is a result of collective positive attitudes and behaviors produced by an organization (Demerouti & Cropanzano, 2010). In our study, we focus on organization-level performance outcomes in service organizations, with particular attention to client satisfaction. Client satisfaction is often the result of the combined action of several engaged employees working in an organization (Salanova, Agut, & Peiro, 2005). Accordingly, we argue that it is important to consider collective engagement within organizations at the organizational-level for organizational performance outcomes. To know about the relationship of organizational engagement and performance would be an important finding, as the value of employee engagement for organizations could inform larger-scale human resource initiatives. These initiatives could be arranged more efficiently and cost-saving at the organizational level than arranging them at the individual level of every single employee. Barrick and colleagues (2015) described such initiatives as firm-level resources.

In sum, this study builds on and extends previous findings on the engagement-performance link by moving these concepts from the level of individual employees and organizational units to entire organizations. As such, we expand the nomological network surrounding work engagement and situate this construct in the broader organizational scope, thus paving the way for larger human resource management initiatives that focus on work engagement as a core organizational value. To the best of our knowledge, this study is the first to investigate work engagement at the organizational level. We empirically examine the performance consequences of work engagement at the level of entire organizations, implementing a time-lagged design in 156 well-comparable organizations ($N = 29,997$ employees at time 1 and $N = 27,472$ employees at time 2, one year later among the same employees). By considering organizational performance across time and by implementing cross-lagged panel analysis, our research breaks new ground by identifying causal directions regarding the engagement-performance link at the organizational level.

THEORETICAL BACKGROUND

There are at least two definitions of work engagement in the literature. Both of these highlight positive connotations of the engagement construct, yet they also emphasize different aspects of work engagement. Peccei (2013) clusters these different definitions of work engagement in two main categories: attitudinal or state work engagement on the one hand and behavioral work engagement on the other hand. Given our interest in work engagement in the broader organizational context rather than at the individual level, we focus on the behavioral approach to work engagement.

Kahn (1990) was among the first to define *work engagement* from a behavioral stance. He described engagement as employees' behavior to fully invest themselves in their work roles—physically, cognitively, and emotionally—while *disengagement* means that employees

extricate themselves from their work roles. A core tenet of Kahn's (1990) conceptual approach is that highly engaged employees are able to express their preferred selves and simultaneously satisfy their role requirements in the job. Engaged employees undertake physical effort, they are cognitively alert, and they are emotionally linked to their work (Kahn, 1990). Rich and colleagues (2010) summarize these behavioral connotations of work engagement in terms of "investing the 'hands, head and heart' in active, full work performance" (Rich et al., 2010, p.619).

Following Kahn's (1990) approach, in investigating the organization-wide effects of employee engagement, we emphasize the behavioral components of engagement rather than employees' state of mind. Peccei (2013) argues that research applying Kahn's (1990) definition is a promising way forward for engagement research. Because the attitudinal approach to work engagement has drawn criticism concerning its assessment applying the Utrecht Work Engagement Scale (Byrne, Peters, & Weston, 2016) researchers called for more research on behavioral engagement (Peccei, 2013). Hence, in our paper, we focus on the behavioral definition of the work engagement construct and its consequences at the organizational level. We argue that work engagement as a behavior is observable and will accordingly likely manifest itself as a collective construct at the organizational level rather than attitudinal work engagement, which may be a more individual or team-level construct.

Conceptualizing Work Engagement at the Organizational Level

Most previous studies have investigated work engagement at the individual level and focused on individual-level antecedents and consequences (e.g., Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007; Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009). Fewer studies have considered engagement in the context of dyadic relationships (Breevaart et al., 2014), at the team level (Bakker et al., 2006), or at the level of organizational units (Harter, Schmidt, & Hayes, 2002; Salanova, Agut, & Peiro, 2005). However, engagement has

rarely been considered in the context of entire organizations, even though scholars have repeatedly called for more research on work engagement at the larger organizational level (e.g. Demerouti & Cropanzano, 2010; Rich et al., 2010).

There is considerable empirical evidence that members of groups and organizations tend to develop shared affects, attitudes, and behavioral and motivational patterns (e.g., Bakker et al., 2006; Barsade & Knight, 2015; Duffy, Shaw, & Stark, 2000; Felps et al., 2009; George, 1990; Lehmann-Willenbrock & Allen, 2014; Salanova et al., 2005). One reason for such shared experiences in the workplace concerns the social observation of behavior among co-workers. For example, employees working in the same team or in the same organization observe the extent to which their coworkers and supervisors work enthusiastically. They notice if their colleagues smile when talking about their job or if they complain about the tasks they have to fulfill, and they notice whether or not others actively engage in team meetings (Costa, Passos, & Bakker, 2014; Sy, Côté, & Saavedra, 2005). Importantly, such observations are not merely informative, but also have important consequences for observers' own behavior in the workplace. In other words, the behavior of employees' peers in larger organizational units can affect employees' own behaviors.

A theoretical approach that can help explain why employees may develop similar levels of work engagement levels within organizations concerns crossover processes (e.g., Pugh, 2001; Westman, 2001; Westman & Etzion, 1999). Crossover in this context means that behaviors and states can transfer from one person to another (Westman, 2001). Research has repeatedly shown that people tend to automatically synchronize facial expressions and movements, and tend to emotionally converge with persons with whom they spend time (e.g., Barsade, 2002; Hatfield, Cacioppo, & Rapson, 1993; Lehmann-Willenbrock, Meyers, Kauffeld, Neininger, & Henschel, 2011). One possible explanation for such a crossover process, for example for engagement, is that employees of an organization interact with each

other, work interdependently, and develop an understanding of what is expected and appreciated in their organization (Klein, Conn, Smith, & Sorra, 2001).

There is some prior empirical support for the notion of crossover in the context of work engagement. Previous research on engagement at the team level indicates that work engagement can ‘infect’ colleagues and can result in a shared collective work engagement climate (Bakker et al., 2006). In particular, Bakker and colleagues (2006) found that group-level work engagement relates to individuals’ work engagement. This transfer of work engagement from the group level to individual employees occurred independently of the demands and resources to which individual employees were exposed. These previous findings imply that engaged teams transfer their optimism, positive attitudes, and proactive behavior to their colleagues, resulting in a positive team climate and improved team performance (Bakker et al., 2006). When extrapolating from these earlier findings regarding individual- and team-level engagement to the broader organizational level, we can assume a similar mechanism at play. A result of these processes may then be that engagement emerges as a property of entire organizations, and that different organizations can be distinguished from one another according to their level of engagement (Rich et al., 2010). Such an approach would also link more closely to practical approaches, as most interventions that are aimed at fostering an engaged workforce are conducted at the organizational level. Again, this suggests the need for research to consider organizational rather than individual engagement (Pugh & Dietz, 2008).

Moreover, different levels within organizations influence each other (e.g., Scott & Davis, 2016). We assume that organizations develop a corporate engagement culture. Corporate culture is defined as a set of shared norms and values in an organization (O’Reilly & Chatman, 1996) in which employees work in highly motivated ways and are dedicated to

shared goals (Sørensen, 2002). By extrapolating this theoretical frame to engagement, we assume that organizations build up a certain corporate culture for engagement.

The above arguments in support of an organizational engagement construct notwithstanding, it is chronically difficult to realize empirical efforts to this end due to data collection issues and to establish the effects of engagement at the level of entire organizations. Such efforts require not only substantial efforts to gather data on organization-wide employee engagement, but also the means to match such data to objective performance measures that are comparable between organizations. Furthermore, according to Dunbar's number, people are able to maintain interpersonal relationships with only 100 to 200 persons, owing to neocortical restrictions (Dunbar, 1992), which makes it challenging to even imagine constructs such as work engagement at the level of entire organizations (which often comprise more than 200 members). To the best of our knowledge, there is only one previous study which investigated work engagement at the level of entire organizations by introducing the idea of *collective work engagement* as a shared perception of work engagement within an organization. Specifically, Barrick and colleagues (2015) described collective organizational engagement as "a firm-level construct and an indicator of the overall motivational environment within the firm" (p. 113). To assess collective engagement, the authors applied a referent shift model (Chan, 1998). Accordingly, the authors did not aggregate individual responses but rather asked a sub-sample of each organization (10 %) for their perceptions of the organizational members' engagement. Hence, work engagement in the previous study by Barrick et al. (2015) was still assessed at the individual level, but the referent of the items was changed from the individual to the collective, thus describing the perceived overall engagement in the organization (Barrick et al., 2015).

To overcome these potential shortcomings of a referent shift model, in this study we apply a direct consensus model (Chan, 1998), building on earlier work by Barnes, Lucianetti,

Bhave, and Christian (2015). In a direct consensus model, data are collected at the individual level and then are aggregated to a higher level (Chan, 1998)—in our case, from the level of individual employees to entire organizations. Accordingly, we assessed individual-level work engagement and aggregated it to the level of entire organizations. In line with this approach, a recent meta-analysis showed that it is more appropriate to aggregate motivationally laden variables (such as work engagement) from the individual level to a higher level than to assess the experiences of others within a workgroup by using a referent shift model (Wallace et al., 2013).

In sum, we conceptualize work engagement at the organizational level and refer to a direct consensus model (Chan, 1998). We define organizational engagement as *the extent to which the members of an entire organization are engaged in their work*. When organizational engagement is high, the collective of the organization's employees is physically, cognitively, and emotionally engrossed in their work. In viewing organizational engagement as a defining characteristic of an entire organization, we assume that employees work for the organization's goals, that they actively participate in team meetings, and that they enjoy performing their tasks. In other words, we expect that employees of engaged organizations *collectively* invest their "hands, head and heart in active, full work performance" (Rich et al., 2010: 619). Moreover, it follows from our definition that this shared level of collective engagement can differ substantially between organizations. Furthermore, we expect that employees of a collectively engaged organization are motivated to behave in ways that benefit the organization as a whole, such that collectively engaged organizations should also experience performance benefits. According to the target similarity model (e.g., Lavelle, Rupp, & Brockner, 2007), relationships between variables are the strongest if they refer to the same target. Hence, we hypothesize about linkages between collective organizational engagement and organizational outcomes, such as organizational performance.

Performance Outcomes of Work Engagement at the Organizational Level

Several researchers, consultants, and practitioners have emphasized the meaning of employee engagement for organizational performance, arguing that work engagement is a competitive advantage for organizations (e.g., Harter et al., 2002; Vance, 2006). However, the relationship between organizational engagement and organizational performance has received only limited scholarly attention to date, and empirical findings remain sparse.

At the individual level, the relationship between employee engagement and individual performance is well understood. Because highly engaged employees work with focused energy which is directed toward accomplishing organizational goals (Macey et al., 2009), it is likely that engaged employees will also show high performance for a number of reasons. Among others, Bakker (2009) argued that work engagement relates to performance because engaged employees often experience positive emotions such as joy and enthusiasm, which enable them to work using their personal resources. Furthermore, engaged employees typically experience good health and well-being, which enables them to fully dedicate their skills and energy to their work (Bakker, 2009; Cole, Walter, Bedeian, & O'Boyle, 2012). Finally, work engagement can be transferred from one individual to another, resulting in a good team and unit performance (Bakker, 2009). When extrapolating to the context of collective organizational engagement, these earlier arguments also hint at the possibility of organization-level performance benefits.

Several previous studies have linked individual work engagement to individual performance rated by the direct supervisor, colleagues, or the employees themselves and found positive relationships between individual engagement and performance, with correlations ranging from $r = .18$ to $r = .34$ (e.g., Breevaart, Bakker, Demerouti, Sleebos, & Maduro, 2014; Breevaart, Bakker, Demerouti, & Van den Heuvel, 2015; Halbesleben & Wheeler, 2008). However, individual performance is just one way to consider performance in

broader organizational contexts. For instance, performance can also be assessed at the level of organizational units, and at the level of organizations at large. Here, in focusing on organization-level performance, we take both conceptual and practical considerations into account. Conceptually, when considering the larger organizational context, performance can be regarded as the result of the combined effort of many employees (Demerouti & Cropanzano, 2010). Moreover, practitioners and consultants often build on the assumption that the fostering of work engagement within units and organizations relates to enhanced unit and organizational performance (e.g., Harter et al., 2002; Macey, Schneider, Barbera, & Young, 2009). Yet, to the best of our knowledge, only one previous study has investigated work engagement at the organizational level (Barrick et al., 2015) and found linkages to performance. Specifically, Barrick and colleagues (2015) investigated the collective work engagement among a sub-sample of 83 credit unions located throughout the United States, and identified a significant and meaningful relationship between collective engagement in these sub-samples and organizational performance ($r = .28$).

Furthermore, there are two prior studies that analyzed work engagement and performance at the unit level (Harter et al., 2002; Salanova et al., 2005). First, Salanova and colleagues (2005) investigated 114 Spanish work units of hotel front desks and restaurants, using aggregated measures of $n = 342$ employees and $n = 1,140$ customers. The authors surveyed three employees from every unit, and found that unit-level work engagement positively related to customer satisfaction via service climate ($r =$ between $.07$ and $.18$). Second, a meta-analysis of cross-sectional findings covering a sample of 7,939 business units of 36 companies showed a relationship between unit-level engagement and business outcomes at the unit level ($r = .26$; Harter et al., 2002). The authors based their meta-analytical conclusions on survey results of work units of different organizations and focused on different performance outcomes, respectively. However, all of the three forgoing studies

reached the conclusion that time-lagged research is needed in order to investigate causality issues concerning unit or organizational engagement on the one hand and performance on the other hand (Barrick et al., 2015; Harter et al., 2002; Salanova et al., 2005).

To address this need, we adopted a direct consensus approach (Chan, 1998) at the level among entire organizations and implement a time-lagged design. Furthermore, we matched our data on organizational engagement with objective performance measures of every organization that are comparable across organizations, thus addressing the question if engagement at the organizational level is related to company performance. For investigating these organization-level questions, we focused on service organizations, specifically public employment agencies tasked with combating unemployment and helping people find work. These organizations provide a particularly intriguing study context for examining linkages between organizational engagement and performance given how important the quality of their services is not only for the individual customers who receive advice (and ideally, job placements) but also for societal functioning and well-being at large (e.g., Gregg & Wadsworth, 1996; Winterhager, Heinze, & Spermann, 2006).

Especially for service organizations, customer satisfaction is an important evaluation of performance. We expect that service organizations in particular experience benefits for their customer satisfaction as a result of their engaged workforce, as customer interaction is a core task for employees of these organizations. The satisfaction of customers is highly related to the interaction between employees and customers (Salanova et al., 2005). Employees who are engaged work enthusiastically and are physically, cognitively, and emotionally occupied with their work (Kahn, 1990), and therefore will likely assist their customers in a persistent and friendly manner. We expect that for organizational collectives of employees who share a high organizational engagement, these interactions are mostly positive, and these employees try to cater on costumers individually so that customers will report favorable satisfaction.

Hence, engaged organizations should experience performance benefits in terms of customer satisfaction. Accordingly, our first hypothesis is as follows:

Hypothesis 1. Organizational work engagement is a positive predictor of customer satisfaction.

Given our study focus, in addition to customer satisfaction, we also investigate the effects of organizational engagement on a second indicator of organizational performance, namely job placement success. For the service organizations under study here, job placement success is one of the most important performance measures (Winterhager et al., 2006). The objective measure of placement success entails the amount of unemployed customers that can be placed in a job again.

The assistance of persons finding a job again is often a challenging task. For instance, job agency employees often work with customers who are not motivated to seek employment or who experience difficulties finding a job over a longer period of time (Sianesi, 2008). Accordingly, employees who collectively work enthusiastically and motivated may achieve higher results in the overall organizational job placement success. Put formally, our second hypothesis is as follows:

Hypothesis 2. Organizational work engagement is a positive predictor of job placement success.

Causality Considerations

Finally, we address calls for research on causality issues in the context of organizational engagement and performance (Barrick et al., 2015; Harter et al., 2002; Salanova et al., 2005) by investigating the relationships described above in a time-lagged design. Insights into the direction of these effects, in terms of establishing whether organizational-level work engagement predicts organizational performance (and not the other way round), are not only scientifically meaningful but can also offer important directions for

HR initiatives aimed at fostering an engaged workforce and promoting organizational performance.

To date, there are just a few studies on longitudinal effects of work engagement, and none of these previous studies have considered the causal direction of organizational engagement and performance. In particular, Hakanen, Schaufeli, and Ahola (2008a) used a cross-lagged design to analyze the causal direction of demands and resources as predictors, work engagement and burnout as mediators, and commitment and depression as outcome variables (Hakanen et al., 2008a). The authors indeed found a causal influence in the expected direction, such that demands and resources predicted the outcome variables via work engagement and burnout (Hakanen et al., 2008a). In another cross-lagged panel design study, Hakanen, Perhoniemi, and Toppinen-Tanner (2008b) found that individual job resources predicted individual work engagement, which predicted personal initiative, which in turn predicted work-unit innovativeness. Furthermore, there is previous evidence on the relationship between frontline employees' satisfaction and customer satisfaction. However, the findings on the causal direction of this relationship are diverse. Whereas Netemeyer, Maxham, and Lichtenstein (2012) found that employee satisfaction predicted customer satisfaction, Zablah et al. (2016) showed an 'outside-in' effect, such that customer satisfaction also predicted employee satisfaction. Accordingly, both directions are thinkable. However, these studies focused on employee satisfaction. We would like to expand these findings by referring to work engagement.

In our study, we expect a causal influence of organizational engagement on (1) organization-level customer satisfaction and (2) job placement success, which means that we expect an inside-out rather than an outside-in effect (Zablah et al., 2016). We expect that organizational engagement predicts organizational performance, and not the other way round,

based on our earlier argument that engagement, unlike satisfaction, is a behavioral construct (e.g., Peccei, 2013; Macey & Schneider, 2008). Accordingly, we hypothesize:

Hypothesis 3. Across time, organizational work engagement is a positive predictor of performance and not the other way around.

METHODS

Sample and Procedure

We gathered data in 2013 and 2014 in a nationwide network of service organizations in Germany that provides labor market services to promote employment opportunities, the placement of potential candidates for job interview procedures, and unemployment benefits services. The organizations sought to make work engagement a key value for personal and organizational development. The employees who participated in this study worked in 156 different and independently working organizations at different places across the whole of Germany. There were on average 364 employees in each organization. The organizations were tasked with labor recruitment services, application processing, or internal services such as human resources and the information technology department. Although these sub-organizations work independently from each other, they are comparable because the central part of the organization defines the standards and goals for the organizations, for instance, certain target numbers by which the organizations can be compared. These target numbers include the number of unemployed persons integrated into the job market. Nonetheless, the organizations have considerable autonomy in how they achieve their goals.

A central department responsible for conducting employee surveys in the organization distributed the surveys per email at two measurement points, with one year in between. To ensure data confidentiality, this department included an anonymous number that allowed us to allocate the individuals to their respective organization. Our final sample consisted of

29,997 employees at time 1 and 27,472 employees one year later at time 2 belonging to 156 independent working organizations having a response rate of 52.8% at time 1 and 48.9% at time 2. Furthermore, we could match customer satisfaction ratings and the job placement success of the various organizations at both measurement points.

At time 1, 67% of the employees in our sample was female, 24% worked part-time, and 10% held an executive function. The majority of this sample was older than 45 years (52%). At time 2, 68% was female, 25% worked part-time, and 10% held an executive function. The majority of the employees was older than 45 years (53%).

Measures

To avoid common method bias, we gathered data from different sources, including self-reports of engagement, customer interviews on their satisfaction, and company key figures on organizational performance.

Work engagement. Access to organization-wide data on employee work engagement was made possible using a scale we developed specifically for this organization (engagement index: ENG-I). We developed the ENG-I in order to address an organization's need to apply an instrument that focuses on behavioral engagement and is accepted in the organization (see also Chapter 4 of this dissertation). We developed items via an interdisciplinary focus group of researchers, executives, survey experts in the organization, and employees. To validate the scale, we performed a pre-test in 2012 with a smaller sample of 1,432 employees. In the pre-test, we used the 31 items developed for the ENG-I along with the validated items of the Utrecht work engagement scale (UWES) (Schaufeli, Bakker, & Salanova, 2006). The pre-test showed a good correlation with the UWES ($r = .79$). By conducting exploratory factor analyses and item analyses, we reduced the 31 items to 19 items, belonging to five sub-facets. Furthermore, reliability ($\alpha = .91$) was secured for the scale. According to the Vandenberg and Lance (2000) criteria, the confirmatory factor analysis showed a good fit to the data

($\chi^2 = 27109.19$, $df = 147$, $\chi^2/df = 184.42$, RMSEA = .08, CFI = .93, TLI = .92, SRMR = .06; because the large sample size, the chi square value is not interpretable, see Raykov & Marcoulides, 2012). Moreover, after the pretest, we conducted 10 interviews with the executives of the 10 participating organizations in order to verify the practical feasibility and acceptance of the final 19 items. The engagement index has been conducted on an annual basis since 2013. The 19 items of the final ENG-I belong to five sub-dimensions. The overall scale ($\alpha_{t1} = .91$; $\alpha_{t2} = .93$) showed good reliabilities. Sample items are “*I have a strong drive to achieve work results of a high quality*” and “*I actively participate in meetings*”. The response format was a 6-point Likert scale ranging from 1 (*very often*) to 6 (*never*).

Customer satisfaction. Organization-wide customer satisfaction was assessed by four items in $n = 200$ customer interviews for each of the 156 organization (in sum, 31,200 interviews) which are conducted each year by an external provider. The customers were asked for their satisfaction concerning the placing of unemployed employees, the possibility to gather information, the satisfaction with the employees of the organization, and with the general circumstances. The response format corresponded to that of the work engagement scale with a 6-point Likert scale ranging from 1 (*very satisfied*) to 6 (*not satisfied at all*).

Job Placement Success. We matched our data to an objective performance measure of each sub-organization, namely their job placement success. This rate describes the percentage of unemployed persons that could be placed in an employment again assisted by the employees of the organizations investigated. The performance measure on job placement success takes into account the employment market of the regions so that the rate is well comparable between each sub-organization. The measure ranges from 0 to 100, representing percentages.

Control variables. We controlled for gender (0 = *female*, 1 = *male*), age (assessed in 9 clusters), work hours (0 = *full-time*, 1 = *part-time*), and leadership function (0 = *employee*,

1 = *executive*) in all analyses. Owing to data confidentiality agreements with the workers' council, we could not assess employees' exact individual ages, but measured age in nine clusters instead: 1 (*under 25 years*) to 9 (*older than 60 years*) in five-year increments. We calculated demographic information at the organizational level as follows: (1) Average age, in clusters ranging from 1 to 9 as indicated above; (2) percentage of full-time employees per organization; (3) gender distribution, in terms of the percentage of female employees in each organization; and (4) percentage of employees with managerial responsibility in each organization.

RESULTS

Descriptives

Analyses of the demographic variables at the organizational level showed that the percentage of women within organizations ($r = .39, p < .001$), the percentage of persons with a managerial position ($r = .20, p < .05$), and the percentage of employees holding a full-time contract ($r = .21, p < .05$) are positively related to organizational engagement. We did not find a significant effect for age ($r = -.04, p > .05$). We included the significant relationships as control variables in our cross lagged path analyses and found a nearly similar pattern, with the percentage of women having the strongest effect ($\beta = .40, p < .001$). The effect of the percentage of managerial positions within the organizations did not become significant in the path analyses ($\beta = -.07, p > .05$).

Table 5.1 shows the means, standard deviations, and zero-order correlations of all variables included in our analyses.

Table 5.1

Means, Standard Deviations, and Zero-order Correlations of the Study Variables at the Organizational Level at t1 and t2

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10
1. Work engagement t1	2.18	.14										
2. Work engagement t2	2.06	.14	.76**									
3. Customer satisfaction t1	2.01	.10	.30**	.19*								
4. Customer satisfaction t2	1.99	.11	.36**	.28**	.67**							
5. Job placement success t1	44.59	4.30	.18*	.15	.38**	.43**						
6. Job placement success t2	44.06	5.10	.24**	.19*	.38**	.45**	.96**					
7. Average employee age	5.29	.39	-.04	-.15	.11	.12	.04	.05				
8. Percentage of women	.31	.07	.39**	.27**	.37**	.31**	.31**	.32**	.13			
9. Percentage of employees with leadership function	.10	.02	.20*	-.21**	-.13	-.06	-.03	-.07	.17*	-.10		
10. Work hours	.26	.07	.21*	.26**	.12	.12	.01	.01	.08	.03	-.10	-.36**

Notes: *N*= 156 organizations.* $p < .05$ ** $p < .01$.

Cross-lagged path models

Organizational-level work engagement was calculated by aggregating individual responses to the organizational level. We calculated intraclass correlation coefficients in MPlus 6.0 in order to establish the amount of variance explained by the organizational level. Geiser (2011) notes that already small ICCs of 0.05 or 0.01 can indicate that there is variance that can be explained by the organizational level. Our results show that there seems to be such a part of variance (ICC[1] time 1 = 0.03; ICC[1] time 2 = 0.03). To test if organizational-level work engagement was related to different performance measures, we ran two cross lagged path models in MPlus 6.0. We controlled for gender, work hours and leadership function in all the analyses, because these were the control variables that seemed to show relationships with work engagement due to the correlation table.

Organizational work engagement and customer satisfaction

We first calculated a cross lagged path model for organizational engagement and customer satisfaction. Our model showed a good fit to the data ($\chi^2 = 8.76$, $df = 7$, $\chi^2/df = 1.25$, RMSEA = .04, CFI = .99, TLI = .99, SRMR = .05). Figure 5.1 shows a simplified summary of the model (path coefficients are depicted). We found that organizational engagement ($\beta = .76$, $p < .001$) as well as customer satisfaction ($\beta = .62$, $p < .001$) were stable over the time. We controlled for gender, function, and work hours and found a significant effect of gender ($\beta = .40$, $p < .001$), and work hours ($\beta = .22$, $p < .001$). The cross lagged paths furthermore showed that organizational engagement at t1 was indeed related to customer satisfaction at t2 ($\beta = .18$, $p < .001$) but that customer satisfaction at t1 was not related to work engagement at t2, as expected ($\beta = -.03$, $p = .54$). Accordingly, our first hypothesis and the first part of the third hypothesis (H1 and H3) were supported.

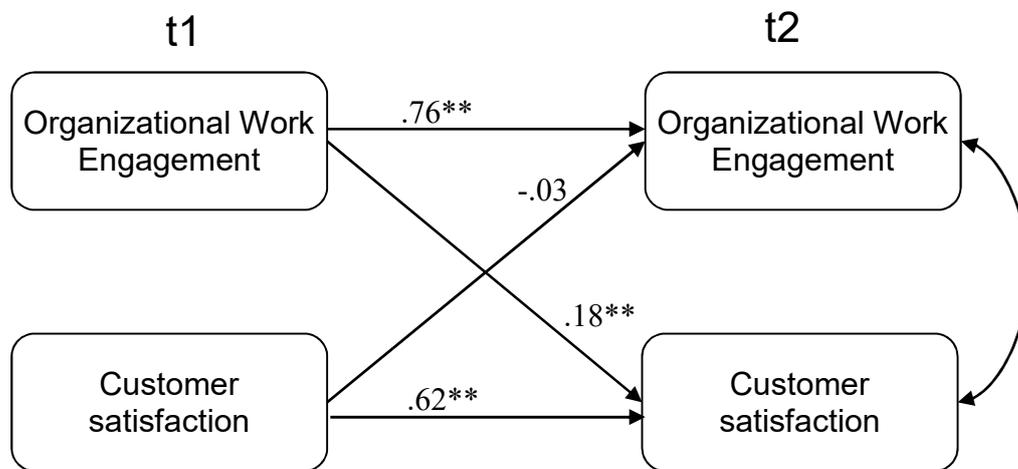


Figure 5.1. Cross Lagged Path Model Showing the Standardized Effects of Organizational Work Engagement (in the Year 2013) on Customer Satisfaction One Year Later

Note. Standardized Path Coefficients.

* $p < .05$

** $p < .01$

Organizational work engagement and job placement success

In a second cross lagged path model, we calculated the effects of organizational work engagement on the job placement success (i.e. successful job placement). The model showed a good fit to the data ($\chi^2 = 13.57$, $df = 7$, $\chi^2/df = 1.94$, $RMSEA = .08$, $CFI = .99$, $TLI = .98$, $SRMR = .03$). Figure 5.2 shows a summary of the model (unstandardized path coefficients are depicted). Organizational engagement ($\beta = .75$, $p < .001$) and job placement success ($\beta = .95$, $p < .001$) were stable over the time. We controlled for gender, function, and work hours and found the same effect as in the other model for gender ($\beta = .40$, $p < .001$), and work hours ($\beta = .22$, $p < .001$). The cross lagged paths furthermore showed that organizational engagement at t1 was indeed related to the job placement success at t2 ($\beta = .07$, $p < .001$) but that the job placement success at t1 was not related to work engagement at t2, as expected ($\beta = .01$, $p = .82$).

Accordingly, our second hypothesis and the second part of the third hypothesis (H2 and H3) were supported.

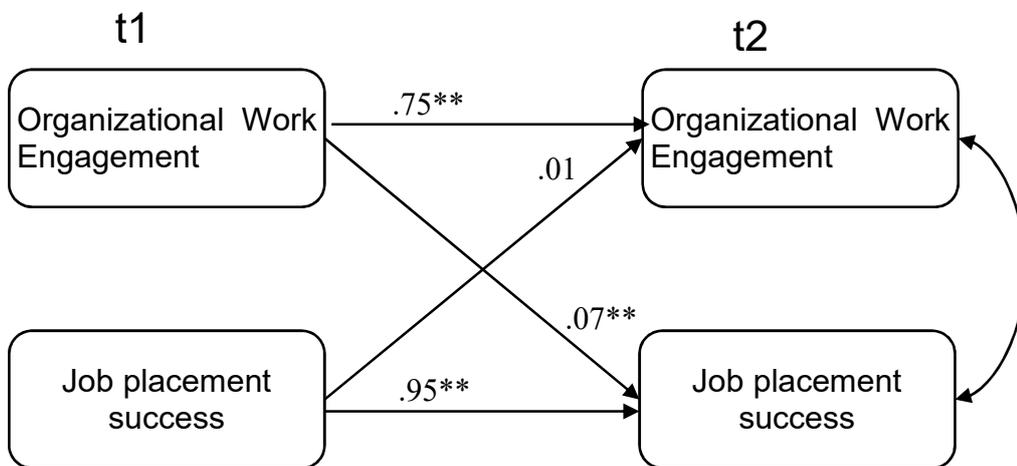


Figure 5.2. Cross Lagged Path Model Showing the Standardized Effects of Organizational Work Engagement (in the Year 2013) on the Job placement success one Year Later

Note. Standardized Path Coefficients.

* $p < .05$
 ** $p < .01$.

In sum, these results show that organizational work engagement at time 1 is positively related to organizational performance indicators (customer satisfaction and the job placement success) at time 2. Furthermore, the cross lagged paths suggest that organizational work engagement caused performance, and not the other way around. Taken together, these findings support all or hypotheses (H1, H2, and H3).

DISCUSSION

This study addressed previous calls to investigate the concept of work engagement at the organizational level (e.g., Peccei, 2013; Vance, 2006), to establish its relationship with organizational performance (Demerouti & Cropanzano, 2010), and to examine causal relationships between organizational engagement and performance (e.g., Barrick et al., 2015; Harter et al., 2002; Salanova et al., 2005). To this end, we investigated work engagement at the level of entire organizations in a time-lagged design. In doing so, we extended previous individual-level findings on the engagement-performance link by moving these concepts to the level of entire organizations and introducing the term *organizational engagement*. Building on crossover theory (e.g., Pugh, 2001; Westman, 2001) and the notion of corporate culture (e.g., Sørensen, 2002), we situated the engagement construct in the broader organizational scope, thus paving the way for human resource management initiatives that focus on work engagement as a key organizational value.

Two main findings accrued from this study. First, the results showed that organizational work engagement meaningfully relates to objective performance measures of entire organizations. The specific performance indices of interest here (customer satisfaction and job placement success) are the most important performance indicators for the type of service organizations (i.e., employment agencies) investigated here. Further, by investigating

engagement and its consequences at the level of entire organizations, we established the relevance of work engagement as a construct at the organizational level. Second, the results of the cross-lagged path analyses indicated a causal direction such that organizational work engagement predicts company performance (and not vice versa). Our field study samples of 29,997 employees at t1 and 27,472 at t2 belonging to 156 organizations provides representative and practically relevant insights into engagement as an organizational construct as well as its performance consequences.

Theoretical Implications

Our findings extend research on work engagement as a meaningful organizational construct in three key ways. First, we expanded previous research on individual work engagement (e.g., Bakker et al., 2007; Xanthopoulou et al., 2009) and team-level influences (e.g., Bakker et al., 2006), and extended the nomological network surrounding the engagement construct to the organizational level. Building on crossover theory (Pugh, 2001; Westman, 2001; Westman & Vinokur, 1998), we argued that organizational engagement can be regarded as a shared behavior in organizations, including high motivation and employees who engage in their job physically, cognitively, and emotionally. Our findings expand previous work by Barrick and colleagues (2015), who introduced the notion of collective engagement by applying a referent shift model (Chan, 1998) in order to assess engagement at the organizational level. Moving beyond this previous work, however, we followed previous meta-analytical advice by Wallace and colleagues (2013) and applied a direct consensus model (Chan, 1998) in order to operationalize work engagement at the organizational level. If organizational engagement is high, employees work in line and for the organization's goals, actively participate in meetings, and tend to engage in behaviors that benefit the whole organization. Accordingly, by conceptualizing engagement at the level of entire organizations, we expanded the nomological network surrounding the engagement construct. We opened new research questions of work engagement at the organizational level. Our findings suggest that researchers should move

beyond the traditional research focus on work engagement at the individual level and should also consider how work engagement can function as a broader organizational construct.

Second, our finding that organizational work engagement relates to organization-wide customer satisfaction and job placement success expands previous work on engagement and performance (e.g., Halbesleben & Wheeler, 2008; Harter et al., 2002; Rich et al., 2010; Salanova et al., 2005) by establishing this relationship at the organizational level. Whereas some previous studies have departed from the traditional focus on individual engagement and its individual-level consequences, analyzing work engagement at the unit level (Harter et al., 2002; Salanova et al., 2005) or among organizational subsamples (Barrick et al., 2015), we could show that work engagement also matters at the organizational level in terms of impacting organizational performance outcomes. Although practitioners and consultants have often emphasized that work engagement forms a competitive advantage for organizations, empirical support for this thought received limited attention to date (Macey et al., 2009; Vance, 2006). Our study provides empirical support to this end and underscores the value of engagement for organizations at large. Moreover, our findings extend previous work on service organizations' performance outcomes by showing that organizational engagement relates to performance indices that are typical for such an organization in the public sector (Salanova et al., 2005). The performance indices we investigated, including objective criteria, are the most important performance indicators for that organization type. As such, we extended previous work on the link between engagement and business unit performance (Salanova et al., 2005) to the domain of entire organizations.

Third, our findings address repeated calls to study the causal relationship between work engagement and performance at the level of organizations in a time-lagged design (Barrick et al., 2015; Demerouti & Cropanzano, 2010; Harter et al., 2002; Salanova et al., 2005). Specifically, we implemented a cross-lagged panel design. Cross-lagged analyses involve collecting the same variables at two (or more) measurement points and then calculating cross-lagged paths while

controlling for each variable's value at the first point in time (Lian, Ferris, Morrison, & Brown, 2014). By including the temporal separation of cause and consequence in this manner, it becomes possible to undertake causality investigations (Lian et al., 2014). In field studies, cross-lagged analyses are the most appropriate method for establishing the causality of effects (Lang, Bliese, Lang, & Adler, 2011). Our finding of a causal direction from organizational engagement to organizational performance represents an important addition to the engagement literature, given the paucity of previous work on engagement as a broader organizational construct overall and the predominant reliance on cross-sectional designs in the few previous studies on this topic, which generally do not permit causal inferences (for an overview, see Harter et al., 2002). Our findings of causal directions between organizational engagement and organizational performance also expand previous research by Hakanen et al. (2008a, 2008b), who mainly investigated causal directions of the JD-R model. Moreover, we could show an "inside-out" effect of organizational engagement on organizational performance, such that organizational engagement influences organizational performance and not the other way around. This finding makes an important contribution to the literature on performance outcomes by considering studies that showed a reciprocal effect of customer and employee satisfaction (e.g., Zablah et al., 2016). To the best of our knowledge, there are no studies on engagement and performance on this causality issue.

Taken together, our research expands the literature on engagement and its performance consequences by conceptualizing work engagement as an organizational-level construct, establishing its relationship with organizational performance, and by identifying the causal directions of this relationship. As such, our findings also have a number of important implications for organizational practice, such as human resource development strategies and performance management at the organizational level, as detailed next.

Practical Implications

Our findings have practical implications for organizations that seek an engaged workforce. Specifically, we foresee that implications for diagnosing and developing work

engagement in human resource development should be based on an adequate assessment of training and development needs if it is to be successful (e.g., Brown, 2002; Werner & DeSimone, 2011).

First, from a diagnostic perspective, our findings point to the benefits of organization-wide employee surveys for measuring work engagement. In organizational practice, employee surveys are often evaluated at the organizational level. As such, our organizational-level conceptualization of engagement is not only a theoretical expansion of the engagement construct, but also holds practical relevance (Vance, 2006). By regularly assessing organizational engagement (e.g., annually), it becomes possible to identify strengths and weaknesses of organizations. Moreover, regular organization-wide measures of engagement can serve as evaluations of potential improvements after conducting organizational actions to develop engagement. Further, the assessment of organizational engagement enables the identification of business cases for engagement, for example by analyzing the working conditions of top-scoring organizations that achieve the best results in organizational engagement surveys. Such an approach would enhance practical knowledge about possible enablers of engagement at the organizational level.

Second, from a human resource development perspective, our finding that organizational work engagement relates to important performance outcomes suggests that organizations should actively invest in fostering the work engagement of entire organizations. For instance, organizations could include work engagement in their mission statements and could make engagement a core value of corporate development and HR development efforts. To initiate such efforts and diagnose needs for development, organizations should first implement regular work engagement assessments at the organizational level. Based on this diagnosis, organizations could then conduct workshops in which employees and their supervisors might discuss these results, identify the necessary improvements to working conditions, and develop action items to foster a

positive work engagement climate. Our findings suggest that such investments would be worthwhile, since more engaged organizations will enjoy meaningful performance benefits. Accordingly, we propose that fostering employee engagement should be considered as an integral part of an organization's performance management process.

Limitations and Future Research Directions

As any empirical research, this study also has several limitations that provide opportunities for future research endeavors. A first limitation concerns the fact that we surveyed white-collar workers in German service organizations, which may limit the generalizability of our findings to this industry and cultural composition of our sample. However, with our sample we can represent an important entire service sector (Winterhager et al., 2006). Future research should investigate whether our findings can be replicated in other organizational or cultural settings. Further, we investigated performance outcomes that are very typical of the sample organization. In particular, job placement success is a performance outcome that is fairly specific to these types of service organizations. Other organizations might focus more on regular sales and earning indices or other financial indicators. Accordingly, future research should investigate whether the link between organizational engagement and performance replicates in different organizational types with different performance ratings.

Second, although cross-lagged analyses represent a fairly conservative measure of causality (Geiser, 2011) and although this approach underscores the strength of our conclusions, firm conclusions regarding causality would require an experimental manipulation of engagement. However, this raises ethical questions. As such, experimental manipulations of engagement in order to investigate causal links to performance are not feasible in the field. Instead, in field studies, cross-lagged analyses are the most appropriate method for analyzing causality (Lang et al., 2011), which deems our study approach adequate. Note that we calculated our path model at the level of 156 organizations, which allows us to interpret the path coefficients instead of effect sizes because our sample was not that large as we could not do this.

In addition, despite significant findings obtained from our cross-lagged analyses, both the independent and the dependent variable might have been influenced by a common third variable. To account for this issue, we included potentially relevant third variables such as gender and leadership function as control variables. Nevertheless, future research should explore to what extent the link between work engagement and performance at the level of organizations may hinge on certain boundary conditions, such as organizational-level leadership or other climate factors that can make a difference between more or less engaged organizations.

Third, we assessed work engagement with a self-developed but empirically validated questionnaire (the engagement index; ENG-I). Our choice for this questionnaire was motivated by referring to the behavioral approach of engagement using Kahn's (1990) definition because it is more observable than the attitudinal approach. Moreover, several authors have noted that no consistent term has been used for employee engagement yet (Macey & Schneider, 2008; Peccei, 2013), and that instruments are needed that operationalize work engagement in a behavioral way by referring to Kahn's definition and by being applicable as employee survey in organizations (Peccei, 2013; Vance, 2006). By developing and applying the ENG-I, we sought to address this concern. Nonetheless, we need studies to further validate the ENG-I in field studies, especially by including further potential predictors such as leadership climate and consequences such as organizational commitment.

Finally, future studies could investigate organizational engagement and especially crossover effects within organizational collectives of employees by investigating organizational engagement in a multilevel design. In the present study, the dependent variable (organizational performance) was already located at the between-level, which made it unnecessary to calculate between-level effects on within-level variables. Nonetheless, in addition to organizational-level performance indicators, future research might also consider individual performance outcomes. In the latter case, a multilevel design might investigate how organization-level engagement affects

individual performance over time. Given the current findings, we would expect similar benefits of organization-level engagement for individual performance as identified for organizational performance here, but future research should examine whether these effects translate from the organizational to the individual level. Moreover, future research using a multilevel design and including longitudinal measures could address the processes by which collective organizational engagement emerges. While this was not the focus of the present study, such an approach could shed light on the ways in which collective engagement comes about in the first place.

REFERENCES

- Agarwal, U.A., Datta, S., Blake-Beard, S., & Bhargava, S. (2012). Linking LMX, innovative work behaviour and turnover intentions: The mediating role of work engagement. *Career Development International*, 17, 208-230. doi:org/10.1108/13620431211241063
- Bakker, A.B. 2009. Building engagement in the workplace. In R.J. Burke & C.L. Cooper (Eds), *The peak performing organization*, (pp. 50-72). Oxon, UK: Routledge.
- Bakker, A.B., Van Emmerik, H., & Euwema, M.C. (2006). Crossover of burnout and engagement in work teams. *Work and Occupations*, 33, 464-489.
doi:10.1177/0730888406291310
- Bakker, A.B., Hakanen, J.J., Demerouti, E., & Xanthopoulou, D. (2007). Job resources boost work engagement, particularly when job demands are high. *Journal of Educational Psychology*, 99, 274-284. doi:10.1037/0022-0663.99.2.274
- Barnes, C.M., Lucianetti, L., Bhave, D.P., & Christian, M.S. (2015). “You wouldn’t like me when I’m sleepy”: Leaders’ sleep, daily abusive supervision, and work unit engagement. *Academy of Management Journal*, 58, 1419-1437. doi:10.5465/amj.2013.1063
- Barrick, M.R., Thurgood, G.R., Smith, T.A., & Courtright, S.H. (2015). Collective organizational engagement: Linking motivational antecedents, strategic implementation, and firm performance. *Academy of Management Journal*, 58, 111-135.
doi:10.5465/amj.2013.0227
- Barsade S.G. (2002). The ripple effect: emotional contagion and its influence on group behavior. *Administrative Science Quarterly*, 47, 644-677. doi:10.2307/3094912
- Barsade S.G., & Knight, A.P. (2015). Group affect. *Annual Review of Organizational Psychology and Organizational Behavior*, 2, 21-46. doi:10.1146/annurev-orgpsych-032414-111316

- Breevaart, K., Bakker, A.B., Demerouti, E., & van den Heuvel, M. (2015). Leader-member exchange, work engagement, and job performance. *Journal of Managerial Psychology*, 30, 754-770. doi:10.1108/JMP-03-2013-0088
- Breevaart, K., Bakker, A.B., Demerouti, E., Sleebos, D.M., & Maduro, V. (2015). Uncovering the underlying relationship between transformational leaders and followers' task performance. *Journal of Personnel Psychology*, 13, 194-203. doi:10.1027/1866-5888/a000118
- Breevaart, K., Bakker, A., Hetland, J., Demerouti, E., Olsen, O.K., & Espevik, R. (2014). Daily transactional and transformational leadership and daily employee engagement. *Journal of Occupational and Organizational Psychology*, 87, 138-157. doi:10.1111/joop.12041
- Brown, J. (2002). Training needs assessment: A must for developing an effective training program. *Public Personnel Management*, 31, 569-578. doi: 10.1177/009102600203100412
- Byrne, Z.S., Peters, J.M., & Weston, J.W. (2016). The struggle with employee engagement: Measures and construct clarification using five samples. *Journal of Applied Psychology*, 101, 1201-1227. doi: 10.1037/apl0000124
- Chan, D. (1998). Functional relations among constructs in the same content domain at different levels of analysis: A typology of composition models. *Journal of Applied Psychology*, 83, 234-246. doi: 10.1037/0021-9010.83.2.234
- Cole, M.S., Walter, F., Bedeian, A.G., & O'Boyle, E.H. (2012). Job burnout and employee engagement a meta-analytic examination of construct proliferation. *Journal of Management*, 38, 1550-1581. doi:10.1177/0149206311415252
- Costa, P., Passos, A.M., & Bakker, A.B. (2014). Empirical validation of the team work engagement construct. *Journal of Personnel Psychology*, 13, 34-45. doi: 10.1027/1866-5888/a000102.

- Demerouti, E., & Cropanzano, R. (2010). From thought to action: Employee work engagement and job performance. In A.B. Bakker & M.P. Leiter (Eds.), *Work Engagement – A Handbook of Essential Theory and Research*. (pp. 147-163). New York, NY: Psychology Press.
- Duffy, M.K., Shaw, J.D., & Stark, E.M. (2000). Performance and satisfaction in conflicted interdependent groups: When and how does self-esteem make a difference? *Academy of Management Journal*, *43*, 772–782. doi:10.2307/1556367
- Dunbar, R.I. (1992). Neocortex size as a constraint on group size in primates. *Journal of Human Evolution*, *22*, 469-493. doi: 10.1016/0047-2484(92)90081-J
- Felps, W., Mitchell, T.R., Hekman, D.R., Lee, T.W., Holtom, B.C., & Harman, W.S. (2009). Turnover contagion: How coworkers' job embeddedness and job search behaviors influence quitting. *Academy of Management Journal*, *52*, 545–561. doi:10.5465/AMJ.2009.41331075
- Geiser, C. (2011). *Datenanalyse mit Mplus*. Wiesbaden: Vs Verlag für Sozialwissenschaften.
- George, J.M. (1990). Personality, affect, and behavior in groups. *Journal of Applied Psychology*, *75*, 107–116. doi: org/10.1037/0021-9010.75.2.107
- Gregg, P., & Wadsworth, J. (1996). How effective are state employment agencies? Jobcentre use and job matching in Britain. *Oxford Bulletin of Economics and Statistics*, *58*, 443-467. doi:10.1111/j.1468-0084.1996.mp58003002.x
- Gruman, J.A., & Saks, A.M. (2011). Performance management and employee engagement. *Human Resource Management Review*, *21*, 123-136. doi:10.1016/j.hrmr. 2010.09.004
- Gutermann, D., Lehmann-Willenbrock, N., Boer, D., Born, M.Ph., & Voelpel, S.C. (2017). How leaders affect followers' work engagement and performance: Integrating leader-member exchange and crossover theory. *British Journal of Management*, *28*, 299-314. doi: 10.1111/1467-8551.12214

- Hakanen, J.J., Perhoniemi, R., & Toppinen-Tanner, S. (2008b). Positive gain spirals at work: From job resources to work engagement, personal initiative and work-unit innovativeness. *Journal of Vocational Behavior*, 73, 78-91.
doi:10.1016/j.jvb.2008.01.003
- Hakanen, J.J., Schaufeli, W.B., & Ahola, K. (2008a). The Job Demands-Resources model: A three-year cross-lagged study of burnout, depression, commitment, and work engagement. *Work & Stress*, 22, 224-241. doi: 10.1080/02678370802379432
- Halbesleben, J.R.B. (2010). A meta-analysis of work engagement: Relationships with burnout, demands, resources, and consequences. In M.P. Leiter & A.B. Bakker (Eds.), *Work engagement: A Handbook of Essential Theory and Research*, (pp. 102-117). New York, NY: Psychology Press.
- Halbesleben, J.R.B., & Wheeler, A.R. (2008). The relative role of engagement and embeddedness in predicting job performance and turnover intention. *Work & Stress*, 22, 242-56. doi:10.1080/02678370802383962
- Harter, J.K., Schmidt, F.L. & Hayes, T.L. (2002). Business-unit-level relationships between employee satisfaction, employee engagement, and business outcomes: A meta-analysis. *Journal of Applied Psychology*, 87, 268-279. doi:org/10.1037/0021-9010.87.2.268
- Hatfield, E., Cacioppo, J., & R.L. Rapson (1993). *Emotional contagion*. New York, NY: Cambridge University Press.
- Kahn, W.A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33, 692-724.
- Klein, K.J., Conn, A.B., Smith, D.B., & Sorra, J.S. (2001). Is everyone in agreement? An exploration of within-group agreement in employee perceptions of the work environment. *Journal of Applied Psychology*, 86, 3-16. doi: org/10.1037/0021-9010.86.1.3

- Lang, J., Bliese, P.D., Lang, J.W., & Adler, A.B. (2011). Work gets unfair for the depressed: cross-lagged relations between organizational justice perceptions and depressive symptoms. *Journal of Applied Psychology, 96*, 1-17. doi: 10.1037/a0022463
- Lavelle, J.J., Rupp, D.E., & Brockner, J. (2007). Taking a multifoci approach to the study of justice, social exchange, and citizenship behavior: The target similarity model. *Journal of Management, 33*, 841–866. doi: 10.1177/0149206307635
- Lehmann-Willenbrock, N. & Allen, J.A. (2014). How fun are your meetings? Investigating the relationship between humor patterns in team interactions and team performance. *Journal of Applied Psychology, 99*, 1278-1287. doi:10.1037/a0038083
- Lehmann-Willenbrock, N., Meyers, R.A., Kauffeld, S., Neining, A., & Henschel, A. (2011). Verbal interaction sequences and group mood: Exploring the role of planning communication. *Small Group Research, 42*, 639-668. doi:10.1177/1046496411398397
- Lian, H., Ferris, D.L., Morrison, R., & Brown, D.J. (2014). Blame it on the supervisor or the subordinate? Reciprocal relations between abusive supervision and organizational deviance. *Journal of Applied Psychology, 99*, 651–664. doi: 10.1037/a0035498
- Macey, W.H., & Schneider, B. (2008). The meaning of employee engagement. *Industrial and Organizational Psychology, 1*, 3-30. doi:10.1111/j.1754-9434.2007.0002.x
- Macey, W.H., Schneider, B., Barbera, K.M., & Young, S.A. (2009). *Employee engagement: Tools for analysis, practice, and competitive advantage*. Malden, MA: Wiley & Sons.
- Netemeyer, R.G., Maxham III, J.G., & Lichtenstein, D.R. (2010). Store manager performance and satisfaction: effects on store employee performance and satisfaction, store customer satisfaction, and store customer spending growth. *Journal of Applied Psychology, 95*, 530-545. doi: 10.1037/a0017630

- O'Reilly, C.A., & Chatman, J.A. (1996). Culture as social control: Corporations, culture and commitment. In B. M. Staw and L. L. Cummings (Eds.), *Research in Organizational Behavior*, (pp. 157-200). Greenwich, CT: JAI Press.
- Peccei, R. (2013). Employee Engagement: An Evidence-based Review. In M.R. Edwards & S. Bach (Eds.), *Human Resource Management in Transition*, (pp. 336-363). Chichester: John Wiley & Sons, Inc.
- Pugh, S.D. (2001). Service with a smile: Emotional contagion in the service encounter. *Academy of Management Journal*, *44*, 1018–1027. doi:10.2307/3069445
- Pugh, S.D., & Dietz, J. (2008). Employee engagement at the organizational level of analysis. *Industrial and Organizational Psychology*, *1*, 44-47. doi: 10.1111/j.1754-9434.2007.00006.
- Raykov, T., & Marcoulides, G.A. (2012). *A first course in structural equation modeling*. New York: Routledge.
- Rich, B.L., Lepine, J.A., & Crawford, E.R. (2010). Job engagement: Antecedents and effects on job performance. *Academy of Management Journal*, *53*, 617-635.
doi:10.5465/AMJ.2010.51468988
- Salanova, M., Agut, S., & Peiró, J.M. (2005). Linking organizational resources and work engagement to employee performance and customer loyalty: the mediation of service climate. *Journal of Applied Psychology*, *90*, 1217-1227. doi:org/10.1037/0021-9010.90.6.1217
- Schaufeli, W.B., Salanova, M., Gonzalez-Roma, V., & Bakker, A.B. (2002). The measurement of engagement and burnout: a two sample confirmatory factor analytic approach, *Journal of Happiness Studies*, *3*, 71-92. doi:10.1023/A:1015630930326
- Schaufeli, W.B., Bakker, A.B., & Salanova, M. (2006). The measurement of work engagement with a short questionnaire: A cross-national study. *Educational and Psychological Measurement*, *66*, 701-716. doi:10.1177/0013164405282471

- Scott, W.R., & Davis, G.F. (2016). *Organizations and Organizing*. New York, NY: Routledge.
- Sianesi, B. (2008). Differential effects of active labour market programs for the unemployed. *Labour Economics*, 15, 370-399. doi:10.1016/j.labeco.2007.04.004
- Sørensen, J.B. (2002). The strength of corporate culture and the reliability of firm performance. *Administrative Science Quarterly*, 47, 70-91.
- Sy, T., Côté, S. & Saavedra, R. (2005). The contagious leader: impact of the leader's mood on the mood of group members, group affective tone, and group processes. *Journal of Applied Psychology*, 90, 295-305. doi:10.1037/0021-9010.90.2.295
- Tims, M., Bakker, A.B., & Xanthopoulou, D. (2011). Do transformational leaders enhance their followers' daily work engagement? *The Leadership Quarterly*, 22, 121-131. doi: org/10.1016/j.leaqua.2010.12.011
- Vance, R.J. (2006). Employee engagement and commitment. *SHRM Foundation*. Retrieved from (17.12.2017): <https://www.shrm.org/foundation/ourwork/initiatives/resources-from-past-initiatives/Documents/Employee%20Engagement%20and%20Commitment.pdf>
- Vandenberg, R.J., & Lance, C.E. (2000). A review and synthesis of the measurement invariance literature: Suggestions, practices, and recommendations for organizational research. *Organizational Research Methods*, 3, 4-70. doi:10.1177/109442810031002
- Wallace, J.C., Edwards, B.D., Paul, J., Burke, M., Christian, M., & Eissa, G. (2013). Change the referent? A meta-analytic investigation of direct and referent-shift consensus models for organizational climate. *Journal of Management*, 42, 838-861. doi:10.1177/0149206313484520
- Werner, J.M., & DeSimone, R.L. (2011). *Human Resource Development*. Mason, OH: South-Western Cengage Learning.
- Westman, M. (2001). Stress and strain crossover. *Human Relations*, 54, 717-751. doi:10.1177/0018726701546002

- Westman, M. & Etzion, D. (1999). The crossover of strain from school principals to teachers and vice versa. *Journal of Occupational Health Psychology, 4*, 269-278. doi:10.1037/1076-8998.4.3.269
- Westman, M. & Vinokur, A. (1998). Unraveling the relationship of distress levels within couples: common stressors, empathic reactions, or crossover via social interactions. *Human Relations, 51*, 137-156. doi:10.1177/001872679805100202
- Winterhager, H., Heinze, A., & Spermann, A. (2006). Deregulating job placement in Europe: A microeconomic evaluation of an innovative voucher scheme in Germany. *Labour Economics, 13*, 505-517. doi: 10.1016/j.labeco.2006.02.003
- Xanthopoulou, D., Bakker, A.B., Demerouti, E., & Schaufeli, W.B. (2009). Reciprocal relationships between job resources, personal resources, and work engagement. *Journal of Vocational Behavior, 74*, 235-244. doi:10.1016/j.jvb.2008.11.003
- Zablah, A.R., Carlson, B.D., Donovan, D.T., Maxham III, J.G., & Brown, T.J. (2016). A cross-lagged test of the association between customer satisfaction and employee job satisfaction in a relational context. *Journal of Applied Psychology, 101*, 743-755. doi: org/10.1037/apl0000079