



JOB CHARACTERISTICS AND ORGANIZATIONAL CITIZENSHIP BEHAVIOR: A MULTISOURCE STUDY ON THE ROLE OF WORK ENGAGEMENT

Matija MARIĆ, Tomislav HERNAUS Faculty of Economics and Business, Zagreb Maja TADIĆ VUJČIĆ Institute of Social Sciences Ivo Pilar, Zagreb Matej ČERNE

Faculty of Economics, Ljubljana

UDK: 005.32 Izvorni znanstveni rad Primljeno: 11. 9. 2017.

ACKNOWLEDGEMENTS This work has been supported in part by the Croatian Science Foundation under the project number UIP-2014-09-3909.

Organization-targeted citizenship behaviors (OCB-O) represent a type of the extra-role performance necessary for attaining better organizational results in the ever-increasing global business arena. Building on the Job Demands--Resources theory we examined the mediating role of work engagement in the relationship between perceived job--design characteristics, and OCB-O as an individual-level outcome. We collected survey data using a sample of 255 employee-supervisor dyads to illustrate how formal job resources (task variety and task significance) and job challenges (skill variety and job innovation requirement) are indirectly (via work engagement) related to employee's citizenship behavior aimed towards the benefit of the organization. The paper thus extends the existing research and offers new practical contributions which can be used for increasing the level of extra-role performance efforts through a specific HRM mechanism.

Keywords: job design, job demands-resources, work engagement, organizational citizenship behavior, mediation analysis

Matija Marić, Faculty of Economics and Business, University of Zagreb, Trg J. F. Kennedyja 6, 10 000 Zagreb, Croatia. E-mail: mmaric@efzg.hr

INTRODUCTION

In addition to formal job requirements, the ever-increasing complexity and changes in contemporary work environments require employees' commitment and proactive contribution to organizational goals. To deal with these changing demands and opportunities, employees are welcome to display extra-role efforts, such as organizational citizenship behaviors (OCB) that extend beyond formal responsibilities and support efficient and effective functioning of the organization (Organ, 1988). Thus, individuals can contribute to overall organizational effectiveness (Frese, Kring, Soose, & Zempel, 1996) by actively investing their efforts to facilitate achievement of their organization's goals and support the social and psychological environment in which task performance takes place (Organ, 1997). OCB could be manifested through helping colleagues with high workload, or seeking and suggesting product and process improvements. These extra-role efforts are very important as they can provide additional resources and challenges that can promote individual performance at work and organizational well-being.

Thus far, studies have provided an extensive list of direct and indirect antecedents of OCB (e.g., Michel, 2017; Organ & Ryan, 1995; Smith, Organ, & Near, 1983). However, Shantz, Alfes, Truss, and Soane (2013) pointed out the lack of research about effects of job design (being an important HRM tool; cf. Hernaus, 2016) on a range of performance outcomes, including OCB. To the best of our knowledge, there are only a few studies exploring a direct influence of formal job characteristics on employee citizenship behaviors (e.g., Park, 2018; Todd & Kent, 2006). Therefore, a better understanding of the underlying mechanisms that can explain how different job characteristics (i.e. job demands and job resources) translate into individual- and organization-targeted citizenship behaviors is needed.

In this study, we posit that optimal job design (i.e. the content and organization of one's work tasks, activities, relationships, and responsibilities; cf. Parker, 2014) encompassing sufficient job resources and challenge job demands can foster employees' proactivity and willingness to do more than is formally required by their job descriptions. The combination of high job resources and challenge job demands enables employees to feel stimulated and supported at the same time, which, in turn, fosters their motivation for work (Tadić, Bakker, & Oerlemans, 2015). In particular, building upon the Job Demands-Resources theory (e.g., Bakker & Demerouti, 2014), we argue that high job resources and challenge job demands indirectly – through work engagement (i.e. a positive motivational state of mind that is characterized by vigor, dedication and absorption; cf. Schaufeli & Bakker, 2004) – contribute to

MARIĆ, M. ET AL.: JOB CHARACTERISTICS... employees' OCB-O and their additional efforts to achieve organizational goals. This impersonal type of citizenship behavior is relevant and still understudied within the organizational psychology literature.

Therefore, the present study aims to contribute to the existing literature by investigating whether the extent to which employees exhibit OCB-O is related to the process in which they are incited by job resources (task variety and task significance) and challenge job demands (skill variety and job innovation requirement) to feel dedicated, energized and stimulated (i.e. engaged) in their work. This is important in order to move forward from widely studied relationships between job design and work engagement (e.g., Halbesleben, 2010; Rich, LePine, & Crawford, 2010) as well as the already well-known association between work engagement and OCB (e.g., Bakker & Xanthopoulou, 2013), and to examine the mediating role of work engagement in the relationship between employees' self--perceived job characteristics and supervisor-rated OCB (e.g., Shantz et al., 2013). By examining the associations between specific job resources and job demands, work engagement and OCB-O, we hope to provide a better understanding of the affective and motivational underlying mechanism that translates job design into the organization-targeted citizenship behavior, which has important theoretical and practical implica-

THEORETICAL BACKGROUND AND HYPOTHESES

Job design and work engagement. The Job Demands-Resources (JD-R) theory has been built from a heuristic model that specifies how two specific sets of working conditions that can be found in every organizational context – job demands and job resources – may produce job strain and work engagement (Schaufeli, Bakker, & Van Rhenen, 2009).

Job demands. Job demands (e.g., emotionally demanding interactions or high work pressures) are those physical, psychological, social or organizational aspects of the job that require sustained physical and/or psychological (i.e. cognitive or emotional) effort and are therefore associated with certain physiological and/or psychological costs (Bakker & Demerouti, 2007). There are two different types of job demands, i.e. challenges (e.g., job complexity, cognitive demands, workload) and hindrances (e.g., interpersonal conflicts, job insecurity, role ambiguity). Challenges have the potential to produce positive gains for employees, which is not characteristic of hindrance job demands (Van den Broeck, De Cuyper, De Witte, & Vansteenkiste, 2010). Thus, following our motivation to study positive psychological processes at work, we focused on job resources and challenge job demands as antecedents of OCB-O,

MARIĆ, M. ET AL.: JOB CHARACTERISTICS... and examined work engagement as an underlying psychological mechanism that enables a positive indirect effect of job design on extra-role performance.

Specifically, we decided to focus our attention on two challenge demands particularly relevant for the contemporary workplace: skill variety and job innovation requirement. Skill variety can be defined as the extent to which the job requires the use of a wide range of skills to perform in-role and extra-role tasks (Chen, Zhang, & Vogel, 2011; Morgeson & Humphrey, 2006). As a typical challenge job demand, skill variety represents a form of both psychological cost and psychological gain. For instance, high levels of required skill variety are considered to be challenging because employees can benefit from using a variety of different skills by enhancing their own efficiency, and a sense of competence. Indeed, meta--analytic results reported by Humphrey, Nahrgang, and Morgeson (2007) showed that skill variety is positively related to job satisfaction, motivation, and employee involvement, which implies that it could also be positively related to work engagement (Halbesleben, 2010). According to the JD-R theory, in the motivational process, higher levels of work engagement (caused by increased skill variety) have a positive effect on a range of job outcomes.

Job innovation requirement or job innovativeness refers to a degree to which a job requires employees to generate, promote, and implement new ideas with the aim of meeting organizational goals in novel ways (e.g., Anderson, Potočnik, & Zhou, 2014). Although this requirement is necessary for academic positions and artistic workers, it can often be regarded as an extra-role demand and a motivating factor for the majority of employees whose jobs still do not require constant innovative output (Yuan & Woodman, 2010). Specifically, if employees need to find better ways to do their tasks, and they deal with them by taking initiative, being flexible, creative and innovative, this, in turn can result in increased work engagement (Huhtala & Parzefall, 2007). For example, Unsworth (2003) recognized job innovation requirement as a strong correlate of engagement in her grounded theory investigation. However, we still lack empirical findings that confirm the role of innovative job challenges in creating more engaged employees. Thus, similar to the skill variety example and job challenges in general, we expect that job innovation requirement may also have a positive effect on work engagement. In line with this reasoning, we state our first hypothesis:

H1: Challenge job demands: a) skill variety and b) job innovation requirement are positively related to work engagement.

MARIĆ, M. ET AL.: JOB CHARACTERISTICS...

Job resources. Job resources refer to physical, psychological, social or organizational aspects of the job that can facilitate and stimulate achievement of work goals, personal growth, learning, and development, as well as help reduce the negative effects of high job demands (Bakker & Demerouti, 2007). Examples of job resources are job autonomy, task variety, and feedback. According to the JD-R theory, job resources should secure positive motivational outcomes for employees (Hakanen, Bakker, & Schaufeli, 2006). For instance, Crawford, Le-Pine, and Rich (2010) conducted a research that confirmed positive relationships between a wide range of job resources (i.e. job control, autonomy, social support, feedback, etc.) and work engagement. Numerous other studies (e.g., Salanova & Schaufeli, 2008; Schaufeli & Bakker, 2004) have also confirmed a positive impact of job resources on work engagement. In addition, the social exchange theory (Blau, 1964) further supports a positive relation between job resources and work engagement, as employees tend to work more in order to return job resources they have gained. Moreover, previous studies in the domain of the job characteristics theory (Hackman & Oldham, 1976) have likewise shown a positive relationship between different job resources (task variety, job autonomy, task significance, social support, and feedback) and work engagement (Christian, Garza, & Slaughter, 2011; Shantz et al., 2013).

In the present research, we particularly focus on task-related job resources, namely task variety and task significance, as these characteristics are very important in providing a sense of meaningfulness of work and, thus, can have a positive impact on work engagement (Bakker & Demerouti, 2014; Hackman & Oldham, 1976). Earlier studies have already revealed that task variety – the degree to which employees' work tasks are varied – is strongly positively related to work engagement (e.g., Shantz et al., 2013) because when employees have to complete different activities throughout the workday, they may feel energized and motivated. Indeed, previous research showed that job monotony can be associated with psychological distress (e.g., Melamed, Ben-Avi, Luz, & Green, 1995). Moreover, task significance represents the degree to which employees feel that their job has a valuable impact (Grant, 2008). Previous studies demonstrated that employees who perceive their work tasks as valuable, worthwhile, and useful tend to be energized, motivated, and persistent in their work, which is a potentially strong resource for increasing work engagement (Shantz et al., 2013). Altogether, we propose our second hypothesis:

H2: Task-related job resources: a) task variety, and b) task significance are positively related to work engagement.

MARIĆ, M. ET AL.: JOB CHARACTERISTICS...

Organization-targeted citizenship behavior and work engagement. OCB is a discretionary behavior that supports the social and psychological environment in which task performance takes place, and it includes behaviors such as helping co-workers, doing extra work beyond formal job description, advocating the organization etc. (Organ, 1997). OCBs tend to be similar across different jobs (Bergeron, 2007), so research can be carried out in different types of jobs and organizations. Two major conceptualizations of OCB have been developed in the literature. The first conceptualization originated by Organ (1988) represents a five-factor OCB model consisting of altruism, courtesy, conscientiousness, civic virtue, and sportsmanship. The model was later expanded to include two additional dimensions (peacekeeping and cheerleading; LePine, Erez, & Johnson, 2002). The second conceptualization developed by Williams and Anderson (1991) distinguishes between OCBs which are directed at individuals (OCB-I) and OCBs which are directed toward the benefit of the whole organization (OCB-O).

Bearing in mind that past research and theory development demonstrated that employee citizenship outcomes can vary significantly depending on different targeted levels (Bergeron, 2007; Ostroff, 1992), in this study we decided to focus in particular on OCBs which are directed toward the benefit of the whole organization (OCB-O). Such behaviors are increasingly welcomed as they indirectly (through organizational structural processes in the form of reward practices) provide support for strategy effectiveness (e.g., Thomas, Ambrosini, & Hughes, in press).

The study by Coleman and Borman (2000) has confirmed the validity of differentiation between OCB-O and OCB-I. The fundamental difference between these types of extra-role behaviors is that the former is defined as behavior that directly benefits the organization and indirectly contributes to the individual (Podsakoff, Podsakoff, MacKenzie, Maynes, & Spoelma, 2014), whereas the latter indirectly contributes to the organization and directly benefits individual employees. Another reason for distinguishing between OCB-O and OCB-I may also lie in different motives and needs that individuals aim to satisfy through their OCBs (e.g., Clary et al., 1998), where particular emphasis should be given to behaviors that benefit the organization in general.

Work engagement is an affective-motivational, positive state of employees experiencing vigor, dedication and absorption at the workplace (Schaufeli & Bakker, 2004). Vigor is characterized by high levels of energy and mental resilience while working (Salanova & Schaufeli, 2008). Dedication represents employee's sense of significance, enthusiasm, inspiration, pride

MARIĆ, M. ET AL.: JOB CHARACTERISTICS... and challenge. Finally, absorption is present when an individual is fully concentrated and absorbed in his or her work, having difficulties with detaching oneself from work (e.g., Bakker, 2011). Engaged employees have high levels of energy, and they enthusiastically apply that energy to their work (Bakker, Schaufeli, Leiter, & Taris, 2008).

The relation between work engagement and extra-role behaviors has recently gained increasing attention among researchers (Demerouti, Bakker, & Gevers, 2015; Sulea et al., 2012). Specifically, a few empirical studies demonstrated that work engagement is positively related to OCB-O (Rich et al., 2010). For instance, Sonnentag (2003) found that work engagement promotes taking initiative at work and pursuing learning goals on a daily basis. From the perspective of the broaden-and-build theory of positive emotions (Fredrickson, 2003), all positive emotions (such as joy, interest, and contentment) share the capacity to broaden people's array of thoughts and actions and build their personal resources (Hakanen & Roodt, 2010). Hence, it is highly likely that people experiencing high work engagement also experience broadened cognition, creativity, proactivity, and a broader scope of attention and openness to information (e.g., Airila et al., 2014). Building upon the broaden-and-build theory of positive emotions, we expect that work engagement promotes OCB-O. More concretely, we expect that highly-engaged employees are willing to take personal initiative, generate new ideas, and put effort into making an extra contribution towards the organizational goals because they experience high levels of positive work-related states. Stated in a more formal way, we formulate our third hypothesis:

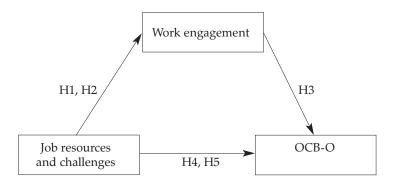
H3: Work engagement is positively related to OCB-O.

The mediating role of work engagement. A large body of literature has demonstrated that when employees have sufficient job resources, they tend to experience high work engagement, which is, in turn, related to various individual and organizational positive outcomes (Bakker & Demerouti, 2014; Halbesleben, 2010). Also, several studies revealed positive outcomes of challenge job demands (in combination with high resources) (e.g., Tadić, Bakker, & Oerlemans, 2015). However, studies examining the role of work engagement as the potential psychological mechanism underlying these associations have been scarce (Sulea et al., 2012). In order to gain more insight into these matters, we assume that task-related job resources (task variety and task significance) and challenge job demands (skill variety and job innovation requirement) are indirectly related to OCB-Os through the mediating effect of work engagement. Specifically, we argue that job resources

MARIĆ, M. ET AL.: JOB CHARACTERISTICS... and challenges provide stimulation of curiosity and interest as well as support, which can serve as a good basis for experiencing work engagement, which in turn, can promote employee behaviors that go beyond formal work duties and tasks for the benefit of their organization. Therefore, we present our fourth and fifth hypothesis:

- H4: Work engagement mediates the relationship between: a) skill variety and b) job innovation requirement, and OCB-O as an outcome variable.
- H5: Work engagement mediates the relationship between: a) task variety and, b) task significance, and OCB-O as an outcome variable.

⇒ FIGURE 1 Research model



METHOD

Sample and procedure

The multisource survey data have been collected from employees and supervisors employed in multiple departments of three selected Croatian organizations. An on-line data collection tool (SurveyMonkey) has been used so that employee--perceived job characteristics could be matched with the supervisors' ratings of OCB-O outcome and job innovation requirements. Employees who had more than six months of job tenure received an e-mail invitation to participate in the survey. Self-reported data about the perceived nature of job resources and challenge job demands, as well as their level of work engagement were collected from employees themselves. Their direct supervisors completed a different survey to provide data on employees' OCB-O and job innovation requirement. From a total number of 336 employees, 255 usable employee survey responses (75.9% response rate) were received. We also managed to collect 56 managerial responses. The modal number of employee respondents per supervisor was six, and the average number was 4.47 (SD = 3.39). An entire work-

MARIĆ, M. ET AL.: JOB CHARACTERISTICS... ing lifespan has been covered by this research (employees ranged from 23 to 63 years of age). Sampled employees were on average younger than 40 years (M=38.37; SD=8.90), had on average less than six years of job tenure (M=5.54; SD=5.46), and less than eight years of organizational tenure (M=7.67; SD=6.63). Research samples were not gender-biased, as we had 51.8% of women respondents (employees' sample) and 56.9% of men respondents (supervisors' sample). Both employees and supervisors were highly-educated (68.3% and 83.0% respectively).

Measures

Two separate survey questionnaires (employee-based and supervisor-based) were developed for conducting this empirical study. Each measure used was a Likert-type scale where respondents had to report the level of their (dis)agreement with the statement at hand (1 – strongly disagree to 5 – strongly agree). Although we used previously validated measures, a translation/back translation procedure was applied. In addition, the questionnaires were pre-tested for reliability and Cronbach's alpha values were clearly above the general recommendation of 0.70 (Nunnally, 1978), thus confirming the validity of the measurement instruments in the Croatian language, which were used to conduct the research. Nevertheless, we also conducted a confirmatory factor analysis (CFA) with maximum likelihood estimation procedures using AMOS version 21. The expected six-factor solution (task variety, task significance, skill variety, job innovation requirement, work engagement, OCB-O) displayed an adequate fit with the data (Chi-square [480] = 965.628, CFI = 0.906, RMSEA = 0.063).

Employee-based questionnaire. Employees were asked to indicate the extent to which they agreed or disagreed with statements related to the nature of their jobs, using the Work Design Questionnaire (WDQ), a comprehensive instrument and a general measure of job design developed and validated by Morgeson and Humphrey (2006). There is strong evidence and common thinking that employee self-ratings are congruent with objective job features (e.g., Fried & Ferris, 1987; Spector, 1992).

Skill variety was measured by the four-item score WDQ scale ($\alpha=0.895$), with the sample item "The job requires me to utilize a variety of different skills in order to complete the work". Task variety was assessed using four WDQ items ($\alpha=0.923$). An example of the items used is "The job requires the performance of a wide range of tasks". Task significance scale consisted of four score WDQ items ($\alpha=0.898$), with the sample item "The results of my work are likely to significantly affect the lives of other people". Lastly, employees rated their levels of

MARIĆ, M. ET AL.: JOB CHARACTERISTICS... work engagement using the nine-item version of the Utrecht Work Engagement Scale (UWES; Schaufeli, Salanova, Gonzalez-Roma, & Bakker, 2002), which also showed to be a reliable measure ($\alpha = 0.914$). Example items are "I get carried away when I work" and "I feel strong and vigorous in my job."

Supervisor-based questionnaire. In order to eliminate concerns related to the potential common method bias, we collected data on *job innovation requirement* from direct supervisors, as an alternative to employee self-reports. The level of designed job innovativeness was assessed by the five-item measure ($\alpha = 0.832$) initially developed by Yuan and Woodman (2010) and adapted for the managerial application with the sample item "Suggesting new ideas is part of my subordinates' job duties". Supervisors were also asked to evaluate the OCB-O of each of their direct reports who decided to participate in the research (dependent variable). Organization-targeted citizenship behavior was assessed using the seven-item scale ($\alpha = 0.893$) developed and validated by Ilies, Scott, and Judge (2006). The sample item is "Employee offers ideas to improve the functioning of the organization".

In addition to a priori measures, the a posteriori statistical analysis checked for the common method variance. Harman's single factor test was used and showed that the common method bias is not a major concern in our study (31.74% variance is explained by a single factor).

RESULTS

• TABLE 1 Descriptives, scale reliability scores and correlations Means, standard deviations, scale reliability scores and correlations are shown in Table 1. All the variables were found to be positively and significantly related, except the non-significant relationships between task variety and OCB-O.

	M	SD	1	2	3	4	5	6
 Skill variety Job innovation req. Task variety Task significance Work engagement OCB-O 	4.39 3.40		(0.895) 0.312** 0.540** 0.276** 0.388** 0.205**	(0.832) 0.158* 0.059 0.284** 0.305**	(0.923) 0.285** 0.202** 0.111	(0.898) 0.321** 0.173**	(0.914) 0.251**	(0.893)

Note: Cronbach alphas are shown in the brackets on the diagonal.

- ** Correlation is significant at the 0.01 level (2-tailed)
- * Correlation is significant at the 0.05 level (2-tailed)

In order to test our hypotheses and examine the mediating role of work engagement in the relationship between job-design characteristics and OCB-O, several regression analyses were performed using the PROCESS macro for SPSS v2.16.3

MARIĆ, M. ET AL.: JOB CHARACTERISTICS... (Hayes, 2016). The hypothesized model (recognized as Model 4 in the PROCESS template) separately tested the relationship between the two job challenges (i.e. skill variety, and job innovation requirement), and two job resources (i.e. task variety, and task significance) with OCB-O via work engagement. Such an approach followed our theoretical background and was chosen to gain insights about specific interactions between constructs. The models included gender as a covariate.

Direct effects. The total effect corresponds to the influence that independent variables exert on the dependent variable, while direct effect corresponds to this situation only when the effect of the independent variable on the dependent variable is mediated by another variable (Hayes, 2013, p. 87). As provided in Table 2, the direct effect estimates showed that both job challenges and job resources examined as independent variables (X) were significantly and positively related to work engagement, thus supporting H1 and H2. Work engagement was positively related to OCB-O in each of the examined models (one model per each job characteristic), thus supporting H3. In addition, job resources were not significantly associated to OCB-O as an outcome variable (Y). The same is valid for skill variety as a job challenge, while job innovation requirement was the only job characteristic that is significantly directly related to OCB-O.

• TABLE 2
Results of the mediation analyses of work engagement in the relationship between job characteristics and OCB-O

Model	Independent variable X	$\frac{\text{Direct eff}}{(X \to Y)}$ c'	$ \frac{\text{fect}}{(X \to M)} $	$\begin{array}{c} (M \to Y) \\ b \end{array}$	Indirect <u>effect</u> $(X \rightarrow M \rightarrow Y)$ $a \times b$	Total effect c	Sobel test
1	Skill variety Job innovation req. Task variety Task significance	0.0984	0.3524**	0.1685*	0.0594	0.1578	0.0057
2		0.2606**	0.2080**	0.1410**	0.0368	0.2974	0.0227
3		0.0526	0.1914**	0.1988**	0.0380	0.0906	0.0169
4		0.0673	0.2480**	0.1806**	0.0448	0.1121	0.0062

^{*}*p* < 0.05; ***p* < 0.01

Indirect effect (a x b) – bolded numbers represent ab with 95% bootstrap confidence interval

Total effect = direct effect + indirect effect

X = job characteristic; M = work engagement; Y = OCB-O

Indirect (mediating) effects. The indirect effects correspond to the influence that the independent variables (Xs) exert on the dependent variable (Y) through the mediator (e.g., Quiñones, Van den Broeck, & De Witte, 2013). Our analyses clearly provided evidence that work engagement is a significant mediator both in the relationship between job challenges and OCB-O (models 1 and 2), as well as between job resources and OCB-O (models 3 and 4). For instance, the indirect effect of 0.0431 measured in Model 3 means that two employees

MARIĆ, M. ET AL.: JOB CHARACTERISTICS... who differ by one unit in their task variety are estimated to differ by 0.0380 units in their organization-targeted citizenship behavior as a result of the tendency for those who have relatively more diverse tasks to feel more engaged, which in turn translates into higher levels of this specific type of extrarole performance. In this particular case, the indirect effect did not outreach the direct effect size (c' = 0.0526) but the latter was non-significant, which means that task variety primarily influences OCB-O indirectly through work engagement. The significance of the mediated (indirect) effect was initially confirmed by the Sobel test (z' = 1.9608, p < 0.05). In addition, a 95% bootstrap confidence interval was entirely above zero (CI = 0.0058 to 0.0846) thus supporting our H5a. The same analogy and similar procedure were followed for all other job resources and challenges included, ultimately leading to supporting *H4* and *H5*.

DISCUSSION

The main purpose of the current research was to investigate the role of work engagement as the potential underlying psychological mechanism that might explain the relationships of job demands and job resources with OCB-O. In other words, we examined (a) whether high job resources and challenge job demands can enhance employees' dedication, and perceived sense that the work they do is interesting and meaningful (i.e. their work engagement), and (b) whether that, in turn, can boost their extra-role behaviors, in particular organizational citizenship behaviors directed towards providing benefits for the whole organization.

Theoretical contributions

The present study using the data of 255 employee-supervisor dyads from three Croatian organizations explored the mediating effect of work engagement between job characteristics and OCB-O. Theoretical contributions are related to the role of work engagement as a mediator within the JD-R model components, and they can be further elaborated in three specific points.

First, the paper provides empirical evidence that selected job characteristics are directly related to work engagement. Both the first and the second hypotheses have thus been confirmed. Job challenges including skill variety and job innovation requirement were positively related to work engagement. Similar relationships were recognized in the case of job resources as well. Task variety and task significance were likewise positively related to work engagement, thus being in line with previous studies (Christian et al., 2011; Shantz et al.,

MARIĆ, M. ET AL.: JOB CHARACTERISTICS... 2013). Overall, further evidence was provided from a different context adding to the existing meta-analytic knowledge about the relationship between job characteristics and work engagement (Crawford et al., 2010; LePine, Podsakoff, & LePine, 2005).

Second, the results demonstrated that work engagement is positively related to OCB-O, which follows the JD-R model logic as work engagement is considered to be a factor of intrinsic motivation. Higher levels of intrinsic motivation (vigor, dedication and absorption) are positively related to different extra-role behaviors (Salanova & Schaufeli, 2008). This positive relation between work engagement and OCB-O is in line with previous scholarly work (Schaufeli, Taris, & Bakker, 2006; Rich et al., 2010).

Third, our findings contribute to the literature on work engagement by showing that job-design characteristics (job resources and challenges) have an indirect (via work engagement) but positive impact on OCB-O. This finding supports the proposed theoretical framework of the JD-R theory (Bakker & Demerouti, 2007), the job characteristics theory (Hackman & Oldham, 1976, 1980), social exchange theory (Blau, 1964) and broaden-and-build theory of positive emotions (Fredrickson, 2003) because job challenges (to a certain extent) and job resources (unconditionally) increase the level of employee's intrinsic motivation (i.e. work engagement), thus ultimately leading to employees who are more engaged in OCB-O (e.g., Salanova & Schaufeli, 2008).

Practical implications

The most important practical implication of this study is gaining a better understanding of how HRM mechanisms such as job design might drive employees' motivation and encourage them to provide an extra effort at the workplace. Due to their positive relation with work engagement, a wide range of job resources (task variety, task identity, task significance, autonomy, social support, feedback etc.) offers many possibilities for stimulating vigor, dedication and absorption of employees (Christian et al., 2011). Additionally, the present study confirmed that certain job challenges can also be used for boosting work engagement. Thus, managers have many different options to achieve desired performance outcomes. Besides job resources, this study demonstrated that it is also possible to use job challenges in order to indirectly promote OCB-O. Of course, managers have to be careful when increasing the extent of job demands because at a certain point, higher levels of any job demand characteristic can have negative effects on employees' attitudes and behaviors (e.g., Meijman & Mulder, 1998).

Study limitations and future research avenues

The first limitation of our study is the cross-sectional nature of data which did not allow us to make causal inferences about hypothesized relationships. Although we had a two-week time lag in collecting data from employees and their respective supervisors, this might not be enough to make cause-and-effect estimations between independent and dependent variables.

The second limitation is that only work engagement was observed as a mediator. As Shantz et al. (2013) suggested, multiple mediators (e.g., the three critical psychological states, intrinsic motivation, job satisfaction, etc.) using a structural equation modeling technique should be researched in the future. Including other mediators in the research model may shed a light on the commonality of different variables that could have an influence on OCB-O and other extra-role behaviors.

The third limitation is related to the number of observed job characteristics and their nature. The present study included only challenge and not hindrance job demands. The inclusion of job demands considered as hindrances could demonstrate whether they cause somewhat different effects on OCB-O than job challenges. Further research of job demands is needed to clarify their direct impact on work engagement and indirect impact on OCB-O. Also, a more inclusive number of observed job demands and job resources would improve knowledge about what resources and demands are most important for engagement as well as when, why and how they will be related to engagement (Saks & Gruman, 2014).

Despite the aforementioned shortcomings, the present study offers valuable insights about the relationships within the JD-R framework, which leads to important theoretical and practical conclusions. Thus far, only a few studies have addressed the topic of work engagement as a mediator between specific job characteristics (especially job challenges) and OCB (e.g., Salanova & Schaufeli, 2008; Shantz et al., 2013) or explored a direct effect of formal job characteristics on informal employee citizenship behaviors (e.g., Park, 2018; Todd & Kent, 2006). Also, on the basis of a motivational perspective for volunteering (Clary et al., 1998), our focus on the OCB-O dimension enabled specific insights into OCB aimed at the benefit of the whole organization. Such a focused attention on the organizational level of OCB may help in further understanding the trade-off when individuals are about to choose to contribute for the benefit of their colleagues or the whole organization.

We strongly believe that future research should include as many job characteristics as possible in order to offer better conclusions. The inclusion of other additional outcome variables would contribute to a better understanding of OCB and

MARIĆ, M. ET AL.: JOB CHARACTERISTICS... extra-role performance in general. Additional simultaneous and comparative research of OCB-O and OCB-I dimensions would certainly highlight similarities and differences between their antecedents and thus broaden the view of their motivational drivers. Also, further research of other conceptualizations and comparisons of results across developed taxonomies could clarify whether Williams and Anderson's (1991) conceptualization has valid theoretical and practical grounds for the measurement of OCB.

APPENDIX

Skill variety

- 1. The job requires a variety of skills.
- 2. The job requires me to utilize a variety of different skills in order to complete the work.
- 3. The job requires me to use a number of complex or high-level skills.
- 4. The job requires the use of a number of skills.

Job innovation requirement

- 1. Job duties of my subordinate include searching for new technologies and techniques.
- 2. Introducing new ideas into the organization is part of my subordinate's job.
- 3. My subordinate does not have to be innovative to fulfill his/her job requirements. (reverse-coded)
- 4. The job of my subordinate requires from him or her to try out new approaches to problems.
- 5. Suggesting new ideas is part of my subordinate's job duties.

Task variety

- 1. The job involves a great deal of task variety.
- 2. The job involves doing a number of different things.
- 3. The job requires the performance of a wide range of tasks.
- 4. The job involves performing a variety of tasks.

Task significance

- 1. The results of my work are likely to significantly affect the lives of other people.
- 2. The job itself is very significant and important in the broader scheme of things.
- 3. The job has a large impact on people outside the organization.
- 4. The work performed on the job has a significant impact on people outside the organization.

MARIĆ, M. ET AL.: JOB CHARACTERISTICS... Work engagement

- 1. When I get up in the morning, I feel like going to work.
- 2. At my work, I feel bursting with energy.
- 3. At my job I feel strong and vigorous.
- 4. My job inspires me.
- 5. I am enthusiastic about my job.
- 6. I am proud of the work that I do.
- 7. I feel happy when I am working intensely.
- 8. I am immersed in my work.
- 9. I get carried away when I am working.

OCB-O

- 1. Employee keeps up with the developments in the organization.
- 2 Employee defends the organization when other employees criticize it.
- 3. Employee shows pride when representing the organization in public.
- 4. Employee offers ideas to improve the functioning of the organization.
- 5. Employee expresses loyalty toward the organization.
- 6. Employee takes action to protect the organization from potential problems.
- 7. Employee demonstrates concern about the image of the organization.

REFERENCES

Airila, A., Hakanen, J. J., Schaufeli, W. B., Luukkonen, R., Punakallio, A., & Lusa, S. (2014). Are job and personal resources associated with work ability 10 years later? The mediating role of work engagement. *Work & Stress*, 28(1), 87–105. https://doi.org/10.1080/02678373.2013.872208

Anderson, N., Potočnik, K., & Zhou, J. (2014). Innovation and creativity in organizations: A State-of-the-Science Review, prospective commentary, and guiding framework. *Journal of Management*, 40(5), 1297–1333. https://doi.org/10.1177/0149206314527128

Bakker, A. B. (2011). An evidence-based model of work engagement. *Current Directions in Psychological Science*, 20(4), 265–269. https://doi.org/10.1177/0963721411414534

Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: State of the art. *Journal of Managerial Psychology*, 22(3), 309–328. https://doi.org/10.1108/02683940710733115

Bakker, A. B., & Demerouti, E. (2014). Job demands-resources theory. In P. Y. Chen, & C. L. Cooper (Eds.), *Work and wellbeing: Wellbeing: A complete reference guide* (Vol. III, pp. 37–64). Chichester: Wiley-Blackwell. https://doi.org/10.1002/9781118539415.wbwell019

Bakker, A. B., & Xanthopoulou, D. (2013). Creativity and charisma among female leaders: The role of resources and work engagement. *The*

MARIĆ, M. ET AL.: JOB CHARACTERISTICS... International Journal of Human Resource Management, 24(14), 2760–2779. https://doi.org/10.1080/09585192.2012.751438

Bakker, A. B., Schaufeli, W. B., Leiter, M. P., & Taris, T. W. (2008). Work engagement: An emerging concept in occupational health psychology. *Work and Stress*, 22(3), 187–200. https://doi.org/10.1080/0267837 0802393649

Bergeron, D. M. (2007). The potential paradox of organizational citizenship behavior: Good citizens at what cost? *Academy of Management Review*, 32(4), 1078–1095. https://doi.org/10.2307/20159357

Blau, P. M. (1964). Exchange and power in social life. New York: Wiley.

Chen, Z., Zhang, X., & Vogel, D. (2011). Exploring the underlying processes between conflict and knowledge sharing: A work engagement perspective. *Journal of Applied Social Psychology*, 41(5), 1005–1033. https://doi.org/10.1111/j.1559-1816.2011.00745.x

Christian, M. S., Garza, A. S., & Slaughter, J. E. (2011). Work engagement: A qualitative review and test of its relations with task and contextual performance. *Personnel Psychology*, 64(1), 89–136. https://doi.org/10.1111/j.1744-6570.2010.01203.x

Clary, E. G., Snyder, M., Ridge, R., Copeland, J., Haugen, J., & Miene, P. (1998). Understanding and assessing the motivations of volunteers: A functional approach. *Journal of Personality and Social Psychology*, 74(6), 1516–1530. https://doi.org/10.1037/0022-3514.74.6.1516

Coleman, V. I., & Borman, W. C. (2000). Investigating the underlying structure of the citizenship performance domain. *Human Resource Management Review*, 10(1), 25–44. https://doi.org/10.1016/S1053-4822 (99)00037-6

Crawford, E. R., LePine, J. A., & Rich, B. L. (2010). Linking job demands and resources to employee engagement and burnout: A theoretical extension and meta-analytic test. *Journal of Applied Psychology*, 95(5), 834–848. https://doi.org/10.1037/a0019364

Demerouti, E., Bakker, A. B., & Gevers, J. (2015). Job crafting and extra-role behavior: The role of work engagement and flourishing. *Journal of Vocational Behavior*, 91(1), 87–96. https://doi.org/10.1016/j.jvb.2015.09.001

Fredrickson, B. L. (2003). The value of positive emotions. *American Scientist*, 91(4), 330–335. https://doi.org/10.1511/2003.26.865

Frese, M., Kring, W., Soose, A., & Zempel, J. (1996). Personal initiative at work: Differences between East and West Germany. *Academy of Management Journal*, 39(1), 37–63. https://doi.org/10.2307/256630

Fried, Y., & Ferris, G. R. (1987). The validity of the job characteristics model: A review and meta-analysis. *Personnel Psychology*, 40(2), 287–322. https://doi.org/10.1111/j.1744-6570.1987.tb00605.x

Grant, A. (2008). The significance of task significance: Job performance effects, relational mechanisms, and boundary conditions. *Journal of Applied Psychology*, 93(1), 108–124. https://doi.org/10.1037/0021-9010.93.1.108

Hackman, J., & Oldham, G. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance*, 16(2), 250–279. https://doi.org/10.1016/0030-5073(76)90016-7

Hackman, J. R., & Oldham, G. R. (1980). Work redesign. Reading: Addison-Wesley.

MARIĆ, M. ET AL.: JOB CHARACTERISTICS... Hakanen, J. J., & Roodt, G. (2010). Using the job demands-resources model to predict engagement: Analysing a conceptual model. In A. B. Bakker, & M. P. Leiter (Eds.), *Work engagement: A handbook of essential theory and research* (pp. 85–101). New York: Psychology Press.

Hakanen, J., Bakker, A. B., & Schaufeli, W. B. (2006). Burnout and work engagement among teachers. *The Journal of School Psychology*, 43(6), 495–513. https://doi.org/10.13075/ijomeh.1896.00238

Halbesleben, J. R. B. (2010). A meta-analysis of work engagement: Relationships with burnout, demands, resources, and consequences. In A. B. Bakker, & M. P. Leiter (Eds.), *Work engagement: A handbook of essential theory and research* (pp. 102–118). New York: Psychology Press.

Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York: The Guilford Press.

Hayes, A. F. (2016). The Process macro for SPSS and SAS, http://www.processmacro.org

Hernaus, T. (2016). Job design at the crossroads: From 'creative' jobs to 'innovative' jobs. In M. Škerlavaj, M., Černe, A. Dysvik, & A. Carlsen (Eds.), Capitalizing on creativity at work: Fostering the implementation of creative ideas in organizations (pp. 17–28). Cheltenham: Edward Elgar.

Huhtala, H., & Parzefall, M.-R. (2007). A review of employee well-being and innovativeness: An opportunity for a mutual benefit. *Creativity and Innovation Management*, 16(3), 299–306. https://doi.org/10.1111/j.1467-8691.2007.00442.x

Humphrey, S. E., Nahrgang, J. D., & Morgeson, F. P. (2007). Integrating motivational, social, and contextual work design features: A meta-analytic summary and theoretical extension of the work design literature. *Journal of Applied Psychology*, 92(5), 1332–1356. https://doi.org/10.1037/0021-9010.92.5.1332

Ilies, R., Scott, B. A., & Judge, T. A. (2006). The interactive effects of personal traits and experienced states on intraindividual patterns of citizenship behavior. *Academy of Management Journal*, 49(3), 561–575. https://doi.org/10.5465/amj.2006.21794672

LePine, J. A., Erez, A., & Johnson, D. E. (2002). The nature and dimensionality of organizational citizenship behavior: A critical review and meta-analysis. *Journal of Applied Psychology, 87*(1), 52–65. https://doi.org/10.1037/0021-9010.87.1.52

LePine, J. A., Podsakoff, N. P., & LePine, M. A. (2005). A meta-analytic test of the challenge stressor–hindrance stressor framework: An explanation for inconsistent relationships among stressors and performance. *Academy of Management Journal*, 48(5), 764–775. https://doi.org/10.5465/amj.2005.18803921

Meijman, T. F., & Mulder, G. (1998). Psychological aspects of workload. In P. J. D. Drenth, & H. Thierry (Eds.), *Handbook of work and organizational psychology* (pp. 5–33). Hove: Psychology Press.

Melamed, S., Ben-Avi, I., Luz, J., & Green, M. S. (1995). Objective and subjective work monotony: Effects on job satisfaction, psychological distress, and absenteeism in blue-collar workers. *The Journal of Applied Psychology*, 80(1), 29–42. https://doi.org/10.1037/0021-9010.80.1.29

Michel, J. W. (2017). Antecedents of organizational citizenship behaviors: Examining the incremental validity of self-interest and

MARIĆ, M. ET AL.: JOB CHARACTERISTICS... prosocial motives. *Journal of Leadership & Organizational Studies*, 24(3), 385–400. https://doi.org/10.1177/1548051816683895

Morgeson, F. P., & Humphrey, S. E. (2006). The Work Design Questionnaire (WDQ): Developing and validating a comprehensive measure for assessing job design and the nature of work. *Journal of Applied Psychology*, 91(6), 1321–1339. https://doi.org/10.1037/0021-9010.91.6.1321

Nunnally, J. C. (1978). Psychometric theory. New York: McGraw-Hill.

Organ, D. W. (1988). Organizational citizenship behavior: The good soldier syndrome. Lexington: Lexington Books.

Organ, D. W. (1997). Organizational citizenship behavior: It's construct clean-up time. *Human Performance*, 10(2), 85–97. https://doi.org/10.1207/s15327043hup1002_2

Organ, D. W., & Ryan, K. (1995). A meta-analytic review of attitudinal and dispositional predictors of organizational citizenship behavior. *Personnel Psychology*, 48(4), 775–802. https://doi.org/10.1111/j.1744-6570.1995.tb01781.x

Ostroff, C. (1992). The relationship between satisfaction, attitude, and performance: An organizational level analysis. *Journal of Applied Psychology*, 77(6), 963–974. https://doi.org/10.1037/0021-9010.77.6.963

Park, R. (2018). The roles of OCB and automation in the relationship between job autonomy and organizational performance: A moderated mediation model. *International Journal of Human Resource Management*, 29(6), 1139–1156. https://doi.org/10.1080/09585192.2016.1180315

Parker, S. K. (2014). Beyond motivation: Job and work design for development, health, ambidexterity, and more. *Annual Review of Psychology*, 65(1), 661–691. https://doi.org/10.1146/annurev-psych-010213-115208

Podsakoff, N. P., Podsakoff, P. M., MacKenzie, S. B., Maynes, T. D., & Spoelma, T. M. (2014). Consequences of unit-level organizational citizenship behaviors: A review and recommendations for future research. *Journal of Organizational Behavior*, 35(S1), 122–141. https://doi.org/10.1037/a0013079

Quiñones, M., Van den Broeck, A., & De Witte, H. (2013). Do job resources affect work engagement via psychological empowerment? A mediation analysis. *Revista de Psicología del Trabajo y de las Organizaciones*, 29(3), 127–134. https://doi.org/10.5093/tr2013a18

Rich, B. L., LePine, J. A., & Crawford, E. R. (2010). Job engagement: Antecedents and effects on job performance. *Academy of Management Journal*, *53*(3), *617*–635. https://doi.org/10.5465/amj.2010.51468988

Saks, A. M., & Gruman, J. A. (2014). What do we really know about employee engagement? *Human Resource Development Quarterly*, 25(2), 155–182. https://doi.org/10.1002/hrdq.21187

Salanova, M., & Schaufeli, W. B. (2008). A cross-national study of work engagement as a mediator between job resources and proactive behavior. *The International Journal of Human Resource Management*, 19(1), 116–131. https://doi.org/10.1080/09585190701763982

Schaufeli, W. B., & Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior*, 25(3), 293–315. https://doi.org/10.1002/job.248

MARIĆ, M. ET AL.: JOB CHARACTERISTICS... Schaufeli, W. B., Bakker, A. B., & Van Rhenen, W. (2009). How changes in job demands and resources predict burnout, work engagement, and sickness absenteeism. *Journal of Organizational Behavior*, 30(7), 893–917. https://doi.org/10.1002/job.595

Schaufeli, W. B., Taris, T. W., & Bakker, A. (2006). Dr Jekyll and Mr Hyde: On the differences between work engagement and workaholism. In R. Burke (Ed.), *Work hours and work addiction* (pp. 193–252). Northampton: Edward Elgar. https://doi.org/10.4337/9781847202833.00018

Schaufeli, W. B., Salanova, M., Gonzales-Roma, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: A confirmative analytic approach. *Journal of Happiness Studies*, *3*(1), 71–92. https://doi.org/10.1023/A:1015630930326

Shantz, A., Alfes, K., Truss, C., & Soane, E. (2013). The role of employee engagement in the relationship between job design and task performance, citizenship and deviant behaviours. *International Journal of Human Resource Management*, 24(13), 2608–2627. https://doi.org/10.1080/09585192.2012.744334

Smith, C. A., Organ, D. W., & Near, J. P. (1983). Organizational citizenship behavior: Its nature and antecedents. *Journal of Applied Psychology*, 68(4), 653–663. https://doi.org/10.1037/0021-9010.68.4.653

Sonnentag, S. (2003). Recovery, work engagement, and proactive behavior: A new look at the interface between non-work and work. *Journal of Applied Psychology*, 88(3), 518–528. https://doi.org/10.1037/00219010.88.3.518

Spector, P. E. (1992). A consideration of the validity and meaning of self-report measures of job conditions. In C. L. Cooper, & I. T. Robertson (Eds.), *International Review of Industrial and Organizational Psychology* (Vol. 7, pp. 123–151). West Sussex: John Wiley and Sons.

Sulea, C., Virga, D., Maricutoiu, L. P., Schaufeli, W., Dumitru, C. Z., & Sava, F. A. (2012). Work engagement as mediator between job characteristics and positive and negative extra-role behaviors. *Career Development International*, 17(3), 188–207. https://doi.org/10.1108/13620431211241054

Tadić, M., Bakker, A. B., & Oerlemans, W. G. M. (2015). Challenge versus hindrance job demands and well-being: A diary study on the moderating role of job resources. *Journal of Occupational and Organizational Psychology*, 88(4), 702–725. https://doi.org/10.1111/joop.12094

Thomas, L., Ambrosini, V., & Hughes, P. (in press). The role of organizational citizenship behaviour and rewards in strategy effectiveness. *International Journal of Human Resource Management*. https://doi.org/10.1080/09585192.2017.1391312

Todd, S. Y., & Kent, A. (2006). Direct and indirect effects of task characteristics on organizational citizenship behavior. *North American Journal of Psychology, 8*(2), 253–268.

Unsworth, K. L. (2003). Engagement in employee innovation: A grounded theory investigation. Unpublished article. Available at https://eprints.qut.edu.au/3033/1/Engagement_AoM.pdf

Van den Broeck, A., De Cuyper, N., De Witte, H., & Vansteenkiste, M. (2010). Not all job demands are equal: Differentiating job hindrances and job challenges in the Job Demands Resources model. *European*

MARIĆ, M. ET AL.: JOB CHARACTERISTICS... *Journal of Work and Organizational Psychology, 19*(6), 735–759. https://doi.org/10.1080/13594320903223839

Williams, L. J., & Anderson, S. E. (1991). Job satisfaction and organizational commitment as predictors of organizational citizenship and in-role behaviors. *Journal of Management*, 17(3), 601–617. https://doi.org/10.1177/014920639101700305

Yuan, F., & Woodman, R. W. (2010). Innovative behavior in the work-place: The role of performance and image outcome expectations. *Academy of Management Journal*, 53(2), 323–342. https://doi.org/10.5465/amj.2010.49388995

Karakteristike posla i organizacijsko građansko ponašanje: istraživanje uloge radne angažiranosti prikupljanjem percepcija iz različitih izvora podataka

Matija MARIĆ, Tomislav HERNAUS Ekonomski fakultet, Zagreb Maja TADIĆ VUJČIĆ Institut društvenih znanosti Ivo Pilar, Zagreb Matej ČERNE Ekonomski fakultet, Ljubljana

Organizacijsko građansko ponašanje usmjereno prema koristi organizacije (OGP-O) znači vrstu izvedbe izvan okvira uobi-čajenoga posla koja je potrebna za postizanje boljih organizacijskih rezultata na sve većem globalnom tržištu. Polazeći od teorije izazova i resursa posla, ispitan je medijacijski utjecaj radne angažiranosti na odnos između percipiranih karakteristika dizajna posla i OGP-O. Podaci su prikupljeni anketnim istraživanjem na uzorku od 255 dijada zaposlenika i njihovih nadređenih. Rezultati upućuju na zaključak da formalni resursi posla (raznolikost zadataka, važnost zadatka) i izazovi posla (raznolikost vještina i zahtjev za inovativnošću) neizravno, radnom angažiranošću, pozitivno utječu na povećanje OGP-O. Prema tome, ovaj rad proširuje dosadašnju literaturu i nudi nove praktične spoznaje za povećanje razine kontekstualne uspješnosti zaposlenika kroz specifičan mehanizam upravljanja ljudskim potencijalima.

Ključne riječi: dizajn posla, resursi i zahtjevi posla, radna angažiranost, organizacijsko građansko ponašanje, medijacijska analiza

