Organisational-Based Self-Esteem, Meaningful Work, and Creativity Behaviours: A Moderated Mediation Model with Supervisor Support

AZKA GHAFOOR[*] and JARROD HAAR[**]

Abstract

Creativity behaviours can be fundamental to ongoing organisational success, but less is known around effects from combination of factors. We test organisational-based self-esteem (OBSE) on creativity behaviours and meaningful work as a mediator and perceived supervisor support as a moderator. Under conservation of resource theory, we expect the combined influence of all these factors will promote creativity behaviours, whereas, under behavioural plasticity theory, we expect the external factor (perceived supervisor support) to be especially advantageous only to employees with low OBSE only. We then test a moderated mediation model to determine a potential boundary condition using a sample of 505 New Zealand employees. We find that OBSE influences creativity behaviours and meaningful work, and that meaningful work is also related to creativity behaviours and fully mediates the influence of OBSE. Further, perceived supervisor support interacts significantly with OBSE towards meaningful work and creativity behaviours, indicating greater outcomes when support and OBSE are high. We also find a significant moderated mediated effect, highlighting the boundary condition whereby the indirect effect of OBSE on creativity behaviours (through meaningful work) increases as support strengthens. Our findings challenge OBSE related theories around the influence of external factor (perceived supervisor support) on OBSE, and we discuss our findings in light of these effects.

Keywords: creativity behaviour; organisational-based self-esteem; perceived supervisor support; meaningful work; moderated mediation.

Introduction

Workforce changes, including global competition and job restructuring, have highlighted the challenge for businesses and the importance of maximising employee creativity (Shalley et al., 2009). Due to the changing nature of business, organisations need creativity to maintain a competitive edge (Ekrot et al., 2016), whether to succeed (Yuan & Woodman, 2010) or survive (Amabile et al., 1996). Creativity at work is the development of novel ideas, process, and services (Amabile, 1988), and innovation is the implementation of ideas and process that can be materialised into organisational success (Shalley et al., 2004). Current research has highlighted numerous factors (e.g., Amabile et al., 1996; Shalley et al., 2004; Ghafoor & Haar, 2020) although evidence from New Zealand is scant. Further, the exploration of boundary conditions, whereby factors might attenuate existing relationships (Wayne et al., 2017) is extremely limited.

The present study seeks to provide insights into employee creativity behaviours in the New Zealand context, and uses organisational-based self-esteem (OBSE) as our key focal construct, because we understand stronger self-esteem at work is positively linked to work outcomes (Bowling et al., 2010). We make several theoretical contributions by testing a number of related and interwoven theoretical

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approaches to understanding employee behaviours, to better comprehend the way personal and work factors can influence creativity behaviours. We also test the interaction between factors to gain deeper understanding of the process and shed theoretical insights. Finally, by exploring moderated mediation, we provide more understanding of these factors in *combination*, to unveil boundary conditions whereby we can better understand creativity behaviours.

Theoretical Perspectives

Conservation of Resource Theory

Positive organisational attitudes and behaviours can elicit creativity. For instance, individual creativity is influenced by both internal motivation and external support provided by the organisation, teams and peers (Staw, 1995). Recently, research evidence from Chang and Teng (2017) shows that both intrinsic and extrinsic motivators promotes individuals to be more creative. Following the work of Hackman and Oldham (1980), suggesting that creativity and innovation are derived by integrating individual traits and work design components, recently research has explored how such components play a role in the development of creative ideas and outcomes. For instance, Anderson et al., (2014) highlighted the individual, team and organisational level factors, including values, thinking, self-concepts and leadership as key determinants of creativity. Hence, it is important to consider the influence of these factors which aligns with *Conservation of Resource Theory,* suggesting that individuals gain, retain and conserve their resources to manage stress and demands from the environment, where resources can be anything that adds value to the individual's achievement of goals (Hobfoll et al., 2018) or to be creative.

We explore OBSE, as our key resource (a psychological factor) under conservation of resource theory towards creativity behaviours. Moreover, beyond studying perceived supervisor support as a potential moderator, the influence of OBSE in the presence of an external factor like perceived supervisor support has been identified (Pierce & Gardner, 2004) as triggering special effects, potentially different from the conservation of resource theory. Hence, we rely on *Behavioural Plasticity Theory* as a theory to determine the effect of perceived supervisor support on the relationship between OBSE towards creativity behaviours, and how plasticity towards creativity behaviours translates in the presence of perceived supervisor support. Pierce and Gardner (2004) suggested that work environment conditions (here, perceived supervisor support) might interact with OBSE due to Behavioural Plasticity Theory, which refers to the extent to which an employee is influenced by external factors (Brockner, 1988). Under this theory, employees are expected to react to external cues differently (Pierce & Gardner, 2004), with low OBSE employees reacting stronger to external factors (e.g., perceived supervisor support) than high OBSE workers. This is because low OBSE workers are behaviourally reactive (plastic), due to being more compliant from external cues (Brockner, 1988), with Pierce and Gardner (2004) stating low OBSE employees "seek out and respond to events in their environment" (p. 595).

Additionally, as creativity is influenced by these factors in combination, the *resource caravan effect* under conservation of resource theory comes in effect, suggesting that resources flourish and grow in supportive ecological environment where they prevail in groups and, hence, provide individuals with more resources to achieve their goals (Hobfoll, 2011; Hobfoll et al., 2018). Beyond this theory, we also utilise *Organisational Support Theory*, which Eisenberger, Huntington, Hutchison, and Sowa (1986) define as employees developing global beliefs regarding the extent to which an organisation or supervisor values their contributions, and they respond accordingly. Hence, perceived supervisor support acts as a support factor under organisational support theory and this acts as a resource gain under the conservation of resource theory. Specifically, the gain paradox where resource gain becomes

important in the face of high demands (Hobfoll et al., 2018). We suggest that employees who receive more support from their supervisors feel greater felt obligation and, thus, reciprocate with stronger creativity behaviours (Haar & Spell, 2004).

Creativity Behaviours and OBSE

Many determinants of creativity behaviours have been explored, with Anderson et al. (2014), highlighting multiple individual-level factors, including traits, thinking styles, identity, knowledge, abilities, and psychological states. Hackman and Oldham (1980) suggested that creativity can be achieved by mixing the traits of the employee with work design components of the organisation. Traits can include individual personality types (Madjar et al., 2002), knowledge and abilities (Amabile et al., 1996) and motivation (Grant & Berry, 2011). However, the links between self-esteem at work and creativity behaviours are under-explored, despite links between creativity and traits, such as self-esteem (Anderson et al., 2014), and we suggest OBSE deserves greater exploration.

OBSE is defined as "the degree to which organisational members believe that they can satisfy their needs by participating in roles within the context of an organisation" (Pierce et al., p. 625). OBSE is considered the measure of personal assessment and development, meaning how people assess their own abilities and approve or disapprove their own position with their work (Pierce et al., 1989). Haar and Brougham (2016), stating that "research has concluded that OBSE shapes employee attitudes, motivations, and behaviours" (p. 722) and high OBSE, suggests that the employees are valued by the organisation and, thus, become motivated to work harder and more effectively (Pierce et al., 1989).

OBSE is linked with organisational outcomes and employee behaviours (Pierce & Gardner, 2004), including positively linked to job performance and organisation citizenship behaviours (OCBs) (Gardner & Pierce, 1998; Pierce et al., 1993; Van Dyne & Pierce, 2004), which are referred to as unrewarded discretionary behaviours that help organisations function properly (Organ, 1988). Overall, there is strong meta-analytic support for OBSE, with Bowling et al. (2010) finding that OBSE yielded stronger relationships with organisational and work outcomes than general self-esteem. Despite this strong performance link, there is a lack of exploration towards creativity behaviours, which we develop next.

Employees with high OBSE have a positive attitude towards their goals and consider themselves an important resource for the organisation, improving their sense of citizenship (Rank et al., 2009). Gardner et al., (2015) found a positive link between OBSE and performance, and Haar and Brougham (2016) found positive links between OBSE and OCBs. Combined, these highlighted the links between OBSE and positive work behaviours. Such linkages are expected because high OBSE should lead to greater enthusiasm towards idea generation and creativity related training (Kock et al., 2015), and the generation of creative solutions (Vermunt et al., 2001). This is because higher OBSE employees "reciprocate by making positive, proactive contributions to the organization" (Van Dyne & Pierce, 2004, p. 446). This aligns with *Self-Consistency Theory* (Korman, 1971), where high OBSE employees eagerly "maintain cognitive consistency with their high self-evaluations" (Ferris et al., 2010, p. 562). Furthermore, aligned with conservation of resource theory, high OBSE should act as additional individual resources which can promote creativity behaviours and, in combination with perceived supervisor support under the resource caravan effect (Hobfoll, 2011), provide opportunities to gain supplementary resources leading to creative outcomes.

Ultimately, employees with high OBSE are expected to be cognitively creative and develop creative ideas and solutions in order to achieve their targets. This is because in high OBSE employees, it creates internal motivation and pressure on employee creativity behaviours and means higher self-expectation

towards creativity behaviours and performance. Ekrot et al. (2016) explained that employees are encouraged to "behave in concordance with their high self-expectations by producing innovative ideas that are worth being communicated to peers and superiors" (p. 4). High OBSE employees target their goals seriously as they have higher self-identity leading to the urge to have better results or success (Rank et al., 2009). Combined, we expect high OBSE to positively influence creativity behaviours. Chen and Aryee (2007) noted that creativity behaviours have not been previously examined with OBSE, hypothesising that high OBSE employees "will engage in behavior, possess attitudes, and choose roles that reinforce their positive self-cognition" (p. 228). They found strong support for OBSE positively influencing innovation behaviour, which has subsequently been replicated (Lee & Hyun, 2016), although not in New Zealand. Overall, we expect employees with high OBSE to respond to the trust and esteem placed in them by their organisation by engaging in greater creativity behaviours. We posit the following:

Hypothesis 1. OBSE is positively related to creativity behaviours.

Meaningful Work

Our second factor is meaningful work, defined by Fairlie (2011) as "job and other workplace characteristics that facilitate the attainment or maintenance of one or more dimensions of meaning" (p. 510). Wrzesniewski and Dutton (2001) suggested that employees create meaningful work through job behaviours that improve feelings of purpose and meaning. Hence, being creative and finding meaningful work appear entwined. Meaningful work also aligns with OBSE, with Spreitzer (1995) noting that "meaning is the value of a work goal or purpose, judged in relation to an individual's own ideals or standards. Meaning involves a fit between the requirements of a work role and beliefs, values, and behaviors" (p. 1443). Meaningful work allows employees to develop a strong sense of dignity, autonomy, and sense of freedom to achieve targets (Yeoman, 2014). In terms of its antecedents, meaningful work is influenced by the goals, perception, and purpose (Fairlie, 2011), as well as fairness, leadership, and worthy work (Lips-Wiersma, Haar, & Wright, 2020). Hence, OBSE is expected to influence meaningful work, although the links towards greater creativity behaviours remain under-explored.

Meaningful work has been positively related to important work outcomes including satisfaction (Spreitzer, 1995), and motivation and engagement (Lips-Wiersma & Wright, 2012). Overall, there is empirical evidence linking meaningful work to positive work attitudes and behaviours. We expect meaningful work will lead to higher creativity behaviours as employees working on tasks with more meaning are likely to be more motivated and inspired to be more creative. Further, given the motivational alignment between meaningful work and creativity behaviours and the links between OBSE as an individual motivator, we argue that meaningful work will mediate the influence of OBSE on creativity behaviours. We posit the following:

Hypothesis 2. OBSE is positively related to meaningful work.
Hypothesis 3. Meaningful work is positively related to creativity behaviours.
Hypothesis 4. Meaningful work will mediate the influence of OBSE on creativity behaviours.

Perceived Supervisor Support

Organisational support theory focusses either at the organisational or supervisor level, with Rhoades and Eisenberger (2002) noting that with perceived supervisor support, employees "develop general views concerning the degree to which supervisors' value their contributions" (p. 700). Overall, these support perceptions have meta-analytic support that greater support perceptions lead to stronger

attitudes and behaviours (Rhoades & Eisenberger, 2002). We specifically explore perceived supervisor support as a moderator, because Zhou and Shalley (2011) highlighted the need to examine interaction effects within creativity behaviours.

We suggest employees may collaborate and develop ideas by sharing and collecting information from others, and specifically their supervisor. Environmental factors can impact and promote individuals to find better solutions (Ekrot et al., 2016) and perceived supervisor support also captures supervisor feedback, with Shanock and Eisenberger (2006) highlighting that supervisors can provide individualised treatments to subordinates, espcially "informal feedback concerning job performance" (p. 689). Haar (2006) noted that employees with higher support perceptions engage in more positive behaviours due to reciprocity (via felt obligations) under organisational support theory. Thus, a supervisor who is especially supportive and helpful is likely to receive greater creativity behaviours from employees due to triggering felt obligations under support theory, and this aligns with empirical support towards performance (e.g., Shanock & Eisenberger, 2006; DeConinck & Johnson, 2009).

Under conservation of resource theory, we expect the combined effect of perceived supervisor support, OBSE and meaningful work to be fruitful towards creativity behaviours under the resource caravan effect (Hobfoll, 2011). However, under behavioural plasticity theory, we expect a supportive supervisor to inspire greater creativity behaviours when subordinates have *low* OBSE, because such individuals are more reactive to the attention and feedback of the supervisor. Pierce et al (1989) stated that "experiences within an organization will shape OBSE which will also affect organization related behaviors and attitudes" (p. 626), highlighting the importance of including perceived supervisor support in combination with OBSE. Thus, OBSE concentrates on a person's own interest and beliefs in the context of the organisational role assigned to them. High OBSE employees are more confident in their ability and, thus, are less likely to react to organisational cues. Interactions have been found with OBSE on work and organisational factors, including performance (Hui & Lee, 2000; Pierce et al., 1993), with findings generally showing major change (specifically performance improvements) for <u>low</u> OBSE workers, with little change for high OBSE workers. Consequently, we expect perceived supervisor support to interact with OBSE, enhancing the positive influence more strongly for low OBSE employees only, resulting in higher meaningful work and higher creativity behaviours. We, therefore, posit:

Hypothesis 5. Perceived supervisor support will interact with OBSE towards (a) meaningful work and (b) creativity behaviours, such that high perceived supervisor support will have enhanced outcomes but only for low OBSE employees.

*Perceived supervisor support as a Boundary Condition*

Finally, we examine perceived supervisor support as a boundary condition whereby it might attenuate relationships. Thus, we explore perceived supervisor support as moderating the indirect effect of OBSE on creativity behaviours through meaningful work, thus testing a moderated mediation effect, which Hayes (2018) defines as "an analytical strategy focused on quantifying the boundary conditions of mechanisms and testing hypotheses about the contingent nature of processes, meaning whether "mediation is moderated" (p. 5). Specifically, the moderated mediation approach can analytically "address whether an indirect effect (mediation) is dependent on another variable (moderation)" (Hayes, 2018, p. 5). Hence, the indirect effect of OBSE on creativity behaviours through meaningful work is expected to differ at various levels of perceived supervisor support. Aligned with behavioural plasticity theory, we expect the indirect effect of OBSE to be most beneficial at low levels of perceived supervisor support, with the indirect effect weakening as perceived supervisor support increases. Thus,

we expect perceived supervisor support to act as a boundary condition. This leads to our final hypothesis:

Hypothesis 6: The indirect relationship between OBSE and creativity behaviours via meaningful work is moderated by perceived supervisor support, such that the indirect relationship becomes stronger as perceived supervisor support becomes weaker (moderated mediation).

Our study model is shown in Figure 1.

Figure 1. Hypothesized Study Model.
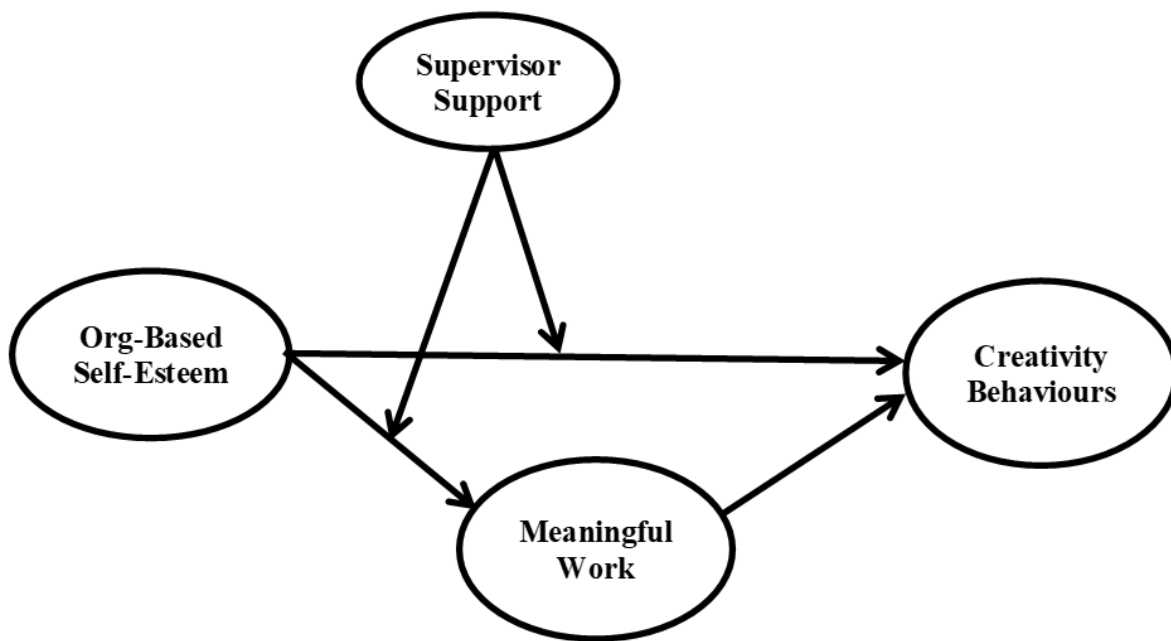
Methods

Participants and Sample

A total of 505 participants were recruited in 2017 via a Qualtrics survey panel of New Zealand employees. Respondents had to be working at least 20 hours a week and be aged 18 years and over, in order to ensure enough work experience. Participants are anonymous and confidential, and the system ensures there are no multiple respondents and removes respondents who answer too quick/slow. This methodology has yielded positive samples (e.g., Haar et al., 2018) with data being comparable to other non-panel samples (Ng et al., 2019). A recent meta-analysis by Walter, Seibert, Goering, and O'Boyle (2019) found no significant differences between data sourced conventionally and data from panels like Qualtrics.

Respondents were evenly split by gender (52 per cent women), with average age of 39.7 years (SD=13.8), and the majority being married (67 per cent). Average tenure was 7.8 years and work hours 39.1 per week. Education was well spread: 23 per cent high school, 30 per cent technical qualification, 33 per cent university degree, and 14 per cent postgraduate qualification in education. By sector, the majority were from the private sector (73 per cent), followed by the public sector (21 per cent) and

not-for-profit sector (six per cent). Statistics New Zealand (2015) reports, from the 2013 Census, that 79 per cent of the New Zealand population has higher education (greater than high school), which does equate well with our data (77 per cent). However, aligned with other New Zealand studies (e.g., Haar & Brougham, 2016), our sample does have higher university qualified respondents. Statistics New Zealand (2017) report 51.2 per cent women in the workforce compared to men, and this also equates well with our sample (52 per cent).

Measures

Creativity behaviours were measured with the three-items by Shimazu et al., (2015), coded 1=not at all characteristic of me, 5=very characteristic of me. A sample item is "I am a good source of creative work ideas" (α= .86).

Perceived supervisor support was measured using three items from Eisenberger et al., (2002), coded 1=strongly disagree, 5=strongly agree. A sample item is "my supervisor is willing to extend themselves in order to help me perform my job to the best of my ability" (α= .88).

OBSE was measured using items by Pierce et al. (1989), coded 1=strongly disagree, 5=strongly agree, using the 5-item short measure (Scott et al., 2008). A sample item is "I am trusted around here" (α= .92).

Meaningful work was measured using the three-item construct by Spreitzer (1995), coded 1=strongly disagree, 5= strongly agree. A sample item is "The work I do on this job is meaningful to me" (α=.95).

We control for a range of factors likely to influence creativity beyond our main factors that are likely to be a necessary work condition, including Hours Worked (total/week) as Amabile et al., (2002) note that hours worked can be related to creativity and Job Repetition, from Brougham and Haar (2017), coded 1==strongly disagree, 5=strongly agree, item is "My work is highly repetitive". We argue that high repetition jobs will be negatively related to creativity behaviours. Finally, we controlled for Private Sector (1=private sector, 0=non-private sector), due to underperformance in the sector (Robertson & Seneviratne, 1995) and Tenure (years), due to meta-analysis around its links to positive innovation behaviours (Ng & Feldman, 2013).

Measurement Models

We conducted a CFA in AMOS version 25, following Williams, Vandenberg, and Edwards (2009) goodness-of-fit indices and thresholds: (1) the comparative fit index (CFI ≥.95), (2) the root-mean-square error of approximation (RMSEA ≤.08), and (3) the standardised root mean residual (SRMR ≤.10). The hypothesised measurement model and two alternative models are shown in Table 1.

Table 1. Results of Confirmatory Factor Analysis

Model	Model Fit Indices					Model Differences			
	χ^2	df	CFI	RMSEA	SRMR	$\Delta\chi^2$	Δdf	p	Details
Model 1	175.2	71	.98	.05	.03				
Model 2	1645.9	74	.71	.21	.13	1470.7	3	.001	Model 1 to 2
Model 3	822.1	74	.86	.14	.11	646.9	3	.001	Model 1 to 3

Model 1= Hypothesised 4-factor model: perceived supervisor support, OBSE, meaningful work and creativity behaviours.
Model 2= Alternative 3-factor model: perceived supervisor support, OBSE and meaningful work combined, and creativity behaviours.
Model 3= Alternative 3-factor model: perceived supervisor support, OBSE, and meaningful work and creativity behaviours combined.

Overall, the hypothesised measurement model was the best fit for the data, with alternative measurement constructs resulting in poorer fit (Hair et al., 2010).

Analysis

Hypotheses 1-5 were tested using SEM in IBM AMOS version 25. We tested moderation and, following potential issues of multicollinearity in SEM (Haar et al., 2014), we entered the single-item interaction term (already calculated) into our model to provide the interaction calculation (as per Wayne et al., 2017). We conducted the moderated mediation analysis (Hypothesis 6) in PROCESS 3.4 (in IBM SPSS version 25) per Hayes (2018), at the 95 per cent confidence interval and bootstrapping at 5,000, providing an Index of Moderated Mediation (a statistical test of moderated mediation effects). PROCESS is a macron that runs in IBM SPSS and is specifically designed to run complex statistical analyses, including moderation, mediation, and moderated mediation. Calculation of skewness and kurtosis statistics indicated that all our study variables were normally distributed within acceptable limits (Hair et al., 2010).

Results

Descriptive statistics for the study variables are shown in Table 2.

Table 2. Correlations and Descriptive Statistics of Study Variables

Variables	M	SD	1	2	3	4	5	6	7
1. Tenure	9.0	9.2	--						
2. Hours Worked	38.9	10.0	.07	--					
3. Job Repetition	2.81	1.2	-.23**	-.10*	--				
4. Perceived Supervisor Support	3.5	.89	-.08	-.13**	-.09*	--			
5. OBSE	3.9	.75	-.00	-.07	-.10*	.66**	--		
6. Meaningful Work	3.7	.95	.15**	.03	-.26**	.31**	.37**	--	
7. Creativity Behaviours	3.8	.65	.12**	.12**	-.09*	.15**	.17**	.29**	--

N=505. *p<.05, **p<.01

Table 2 shows that creativity behaviour is significantly correlated with perceived supervisor support (r= .15, p<.01), OBSE (r= .17, p<.01), meaningful work (r= .29, p< .01), as well as the control variables tenure (r= .12, p< .05), hours worked (r= .12, p< .01) and job repetition (r= -.09, p< .05). Perceived supervisor support is significantly correlated with OBSE (r= .66, p<.01) and meaningful work (r= .31, p< .01), while OBSE and meaningful work correlate with each other significantly (r= .37, p< .01). Finally, tenure correlates significantly with meaningful work (r= .15, p< .01).

Structural Models

We tested three models: (1) a direct effects model (OBSE to all outcomes), (2) a full mediation model: OBSE→ meaningful work → creativity behaviours and (3) a partial mediation model, where OBSE predicts meaningful work and creativity behaviours and meaningful work predicts creativity behaviours. Overall, the partial mediation (model 3) is superior to the other models (both p< .001). We then added the interaction term into the partial mediation model, and that structural model was robust

and met minimum goodness-of-fit indexes noted above (Williams et al., 2009): χ^2(df)= 262.3 (141), CFI=.98, RMSEA=.04, and SRMR=.03.

The path analysis results (unstandardised regression coefficients) are presented in Figure 2.

Figure. 2 Study Model with Effects.
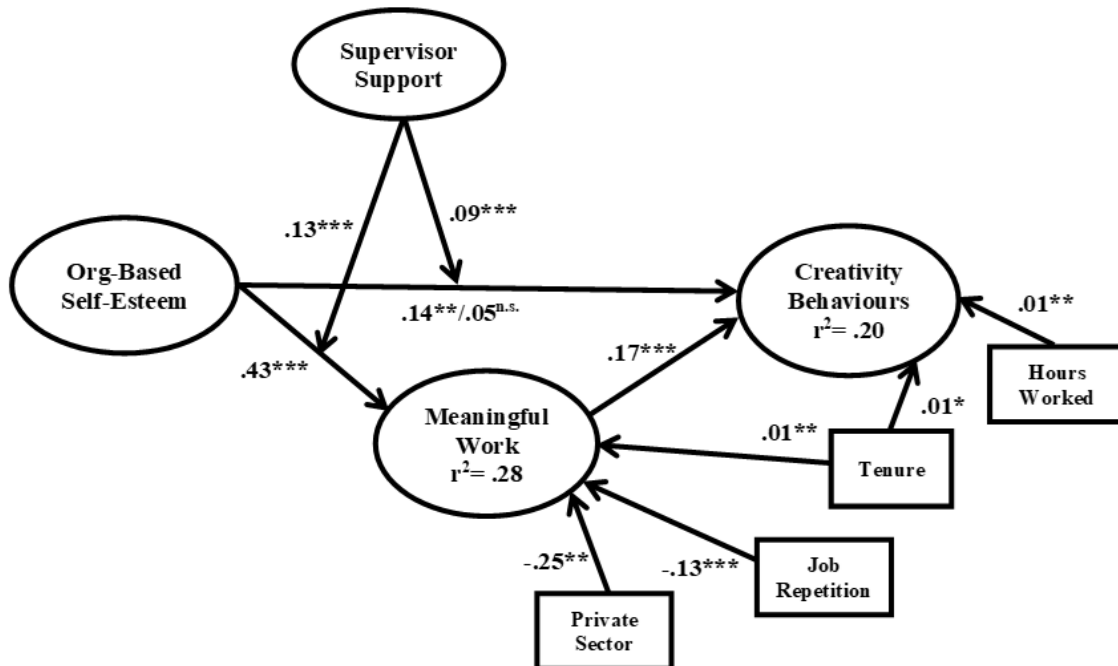
Key: *p< .05, **p< .01, ***p< .001, n.s.=non-significant.

Figure 2 shows the results of model 2 (partial mediation) as this is the best fit to the data. Figure 2 also shows that OBSE is significantly related to creativity behaviours and meaningful work; and when meaningful work predicts creativity behaviours in model 3, it is significant, and fully mediates the influence of OBSE towards creativity behaviours. Overall, these findings provide support for all Hypotheses one to four, including mediating effects of meaningful work. The interaction effects were both supported, with significant interactions between perceived supervisor support and OBSE towards meaningful work and creativity behaviours. Overall, the models account for modest amounts of variance towards creativity behaviours (20 per cent) and meaningful work (28 per cent). The overall variance accounted towards creativity behaviours aligns well with the works of Zacher and Wilden (2014) for innovation behaviours (13 per cent), and Furnham et al., (2008) for self-rated creativity (17 per cent).

We graph the interactions to illustrate the two-way interactions (Figures 3 and 4).

Figure 3. Interaction of OBSE x Perceived supervisor support (PSS) with Meaningful work as the Dependent Variable.
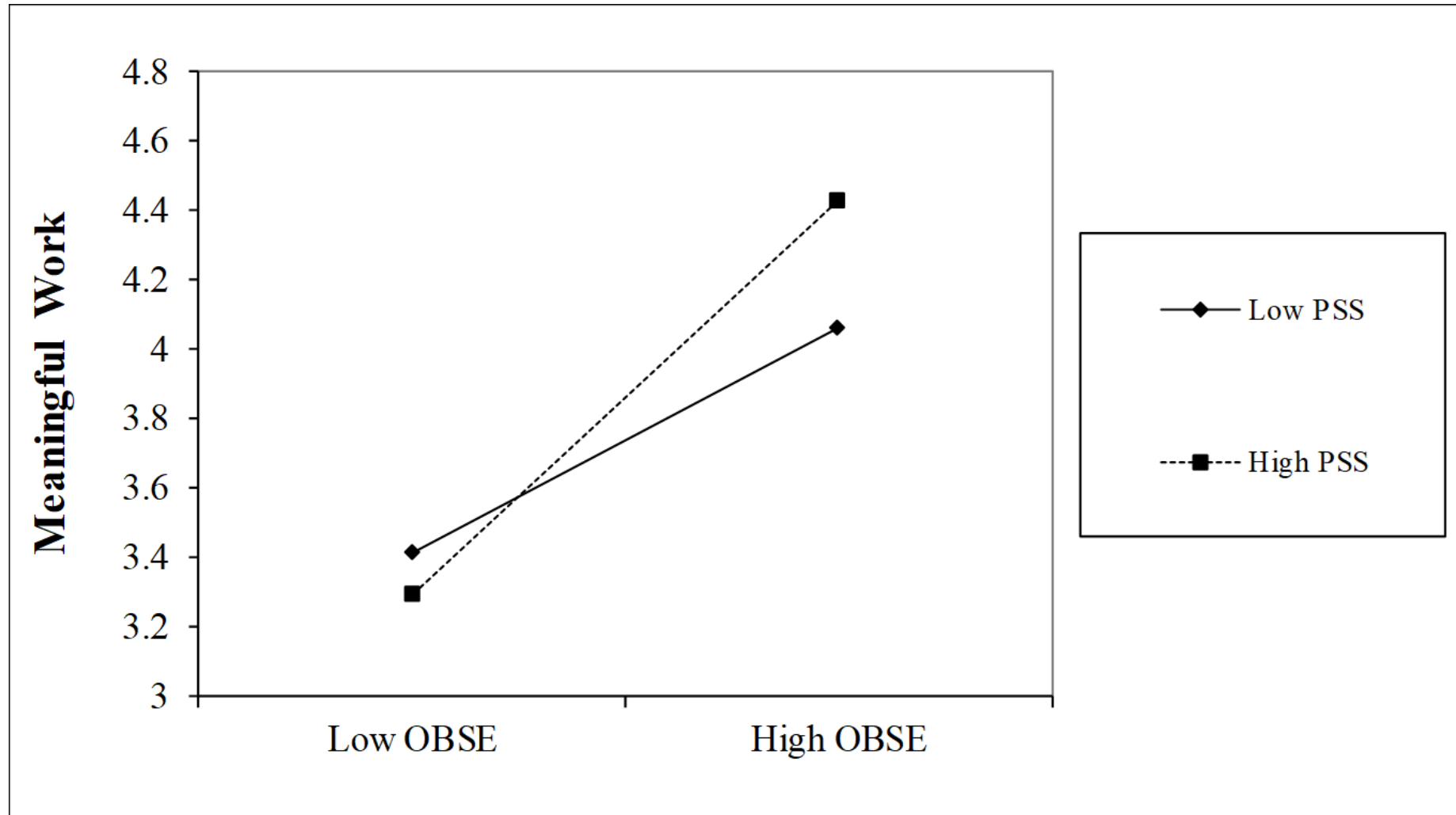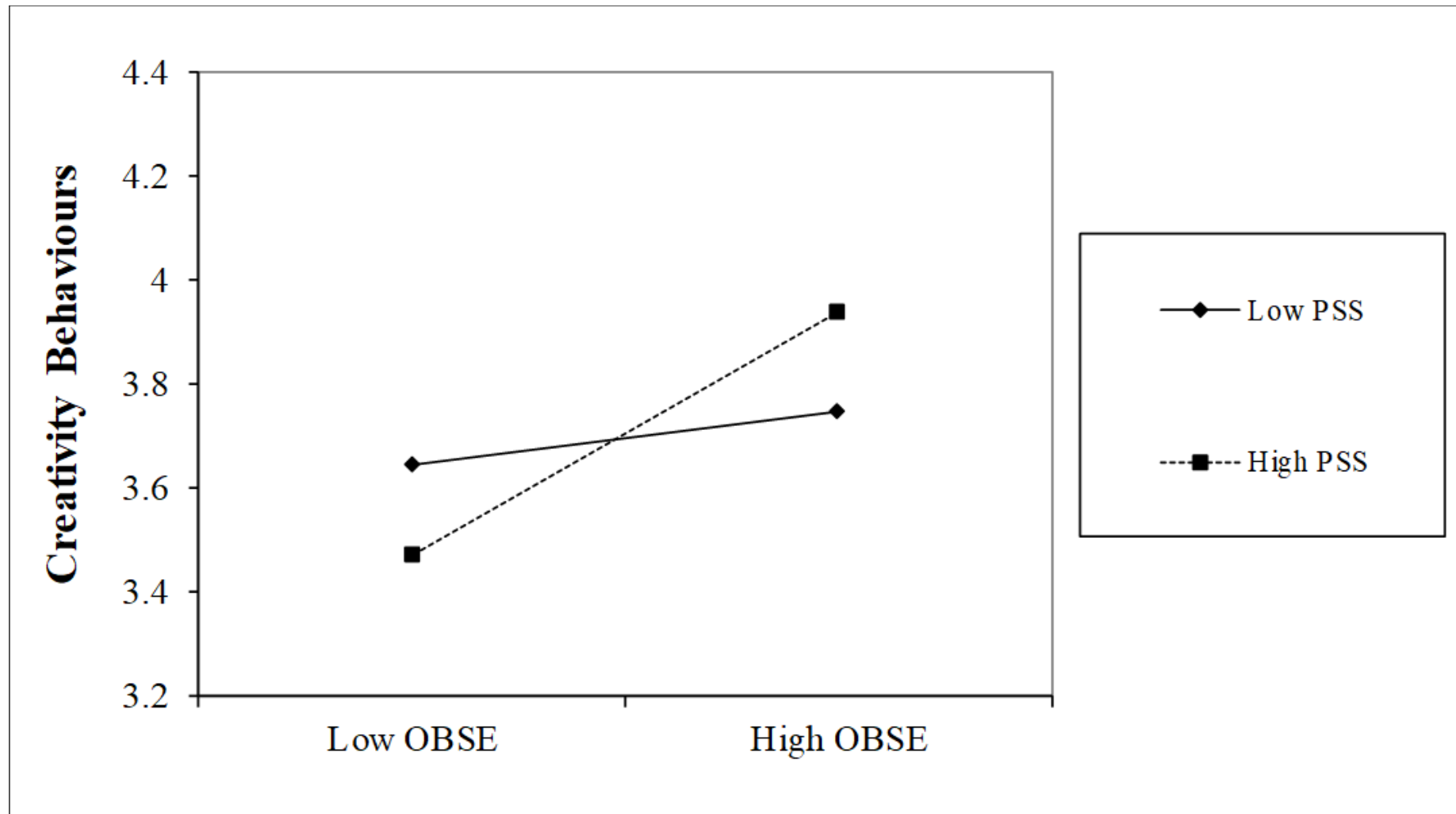
Figure 4. Interaction of OBSE x Perceived supervisor support (PSS) with Creativity Behaviours as the Dependent Variable.

The interactions towards meaningful work (Figure 3) and creativity behaviours (Figure 4) show similar effects: at low levels of OBSE, those with high perceived supervisor support report higher outcomes (meaningful work and creativity behaviours), albeit at a small level of difference. However, the enhancement benefits of perceived supervisor support are shown at high levels of OBSE, where the highest levels of meaningful work and creativity behaviours are reported. However, these effects are counter to the anticipated behavioural plasticity theory effects, instead showing a more traditional intensification (beneficial) effect. Hence, we find no support for Hypothesis 5.

The results of the index of moderated mediation were found to be significant (Index= .02 (.01), p= .021 [LL= .01, UL= .05]). According to Hayes (2018), this is interpreted as meaning the indirect effect of OBSE on creativity behaviours (through meaningful work) differs between respondents' perceived supervisor support. We present the graphed interactions to illustrate these effects in Figure 5.

Figure 5. Indirect Effects of OBSE on Creativity Behaviours Through Meaningful work (MFW) conditional on Perceived supervisor support (PSS).
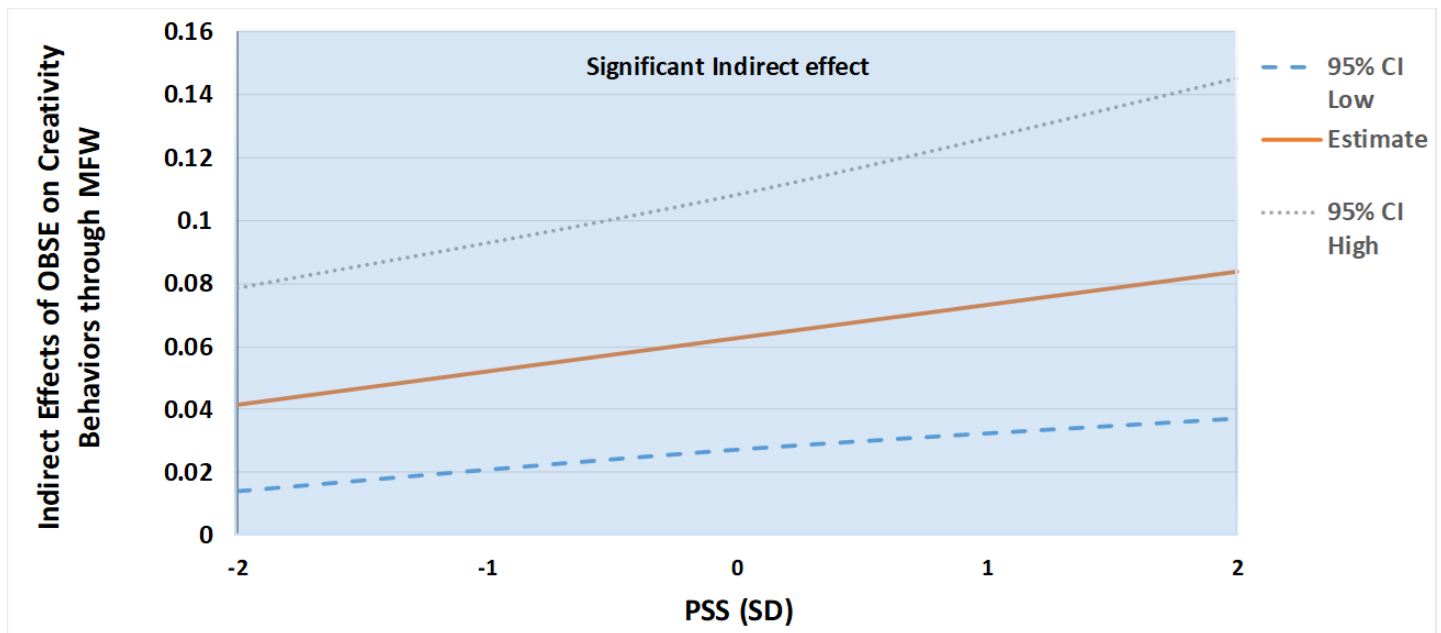
We follow Wayne et al. (2017) to probe the conditional indirect effect by examining the magnitude and significance of the indirect effect of OBSE on creativity behaviours through meaningful work at various levels of perceived supervisor support. Figure 4 shows the significant indirect effect of OBSE→ meaningful work →creativity behaviours, conditional on the effects of perceived supervisor support (at -2SD, mean, and +2SD). We find, for employees reporting low levels of perceived supervisor support, the effect of OBSE on creativity behaviours, vis-à-vis meaningful work, was significant, positive and small (estimate = .037, p= .007; LLCI = .01; ULCI = .08). At the average levels of perceived supervisor support, the effects was significant, positive and stronger (estimate = .057, p= .002; LLCI = .02; ULCI = .10), and stronger still at high levels (+2SD) of perceived supervisor support (estimate = .077, p= .001; LLCI = .03; ULCI = .14). This shows that low levels of perceived supervisor support are associated with a weaker positive indirect effect from OBSE to creativity behaviours through meaningful work compared to those with higher levels of perceived supervisor support.

While the indirect effect is significant across the full 95 per cent confidence intervals, it shows that the benefits of perceived supervisor support are stronger and enhanced when perceived supervisor support is higher, which is counter to our argument and does not support Hypothesis 6.

Discussion

The present study focussed on the resource caravan effect under conservation of resources theory to determine the combined influence of multiple factors to provide a comprehensive approach to understanding employee creativity behaviours. Research to date tends to focus on individual factors – such as personality – but fails to encompass additional factors. We found that OBSE plays an important role in shaping creativity behaviours and, thus, replicated a small number of studies (Chen & Aryee, 2007; Lee & Hyun, 2016) with a New Zealand sample. However, we extended the existing literature by finding that OBSE leads to meaningful work, which, in turn, influences creativity behaviours, and fully mediates the influence of OBSE. These OBSE effects reinforce the findings in the OBSE literature around performance in general (Haar & Brougham, 2016; Gardner et al., 2015), but specifically towards creativity behaviours, and we extended understanding by showing that meaningful work is the key. While researchers have shown that meaningful work is important towards many important employee outcomes (Spreitzer, 1995; Lips-Wiersma & Wright, 2012), our finding towards creativity behaviours also extends this literature.

In addition, the present study explored perceived supervisor support as a moderator of OBSE to better understand the interaction of supervisor support on relationships. This approach was well supported, with perceived supervisor support being found to play an important role, leading to greater meaningful work and creativity behaviours when OBSE is high. This highlights the importance of perceived supervisor support where employees develop perceptions of how their supervisors' value their contributions (Rhoades & Eisenberger, 2002), and employees reciprocate with greater attitudes and behaviours. These effects replicate the importance of perceived supervisor support on performance (Eisenberger et al., 2002), including moderating effects (Kim et al., 2015). These significant moderating effects also reinforce Anderson and colleagues' (2014) calls for testing multiple factors; and our findings reinforce the additional benefits that supervisor support might play (Kim et al., 2015). Importantly, these findings highlight the benefits of exploring moderators with OBSE, and here, we find that this leads to greater meaningful work and creativity behaviours.

Despite the positive effects found, our moderating effects do challenge the notion of behavioural plasticity theory (Brockner, 1988), where typical interaction effects of organisational factors with OBSE are expected to be influential on employees with low (but not high) OBSE (Pierce & Gardner, 2004). One explanation for this unexpected effect might be due to using perceived supervisor support as a moderator. It might be that support perceptions under organisational support theory elicits stronger and more affirmative reactions from employees, rather the typical effects under behaviour plasticity theory. Chen and Aryee (2007) suggest that, due to the potential risk taking with creativity behaviours, there may be a need for greater organisational sponsorship, and that employees with high OBSE "will be more willing to take risks and thereby will engage more in innovative behavior" (p. 229). This might explain why perceived supervisor support positively influences high OBSE, leading to greater creativity behaviours. This explanation might also hold towards the similar positive effect on meaningful work and signifies the importance of the resource caravan effect (Hobfoll, 2011).

These effects warrant further exploration of perceived supervisor support interacting with OBSE, and we encourage researchers to give this more attention.

Finally, our moderated mediation effect indicated that the greatest effect of OBSE are at high levels of perceived supervisor support, although there was still a positive effect at low perceived supervisor support, albeit with a weaker beneficial effect. We find that perceived supervisor support appears to be a key boundary condition for explaining the relationships between OBSE, meaningful work, and creativity behaviours. This boundary condition effect further highlights how powerful the effects of perceived supervisor support are on these relationships and reiterates the value of including perceived supervisor support as a moderator when testing such relationships. The finding suggests that, in combination with high OBSE, greater support perceptions might highlight an intensification effect whereby organisational support theory exerts a greater influence on outcomes than behaviour plasticity theory. It might be that, in some circumstances, the expected effects under behaviour plasticity theory might be challenged and this study provides the first evidence. Further testing of these effects is encouraged.

Implications

The implications for organisations involve highlighting the importance that supervisor support plays in shaping important job attitudes and behaviours, especially for workers with high self-esteem from their work. Hence, providing training for supervisors to make them more focussed and attentive to their workers – and provide constructive feedback – is likely to help trigger idea generation and innovation, which become pillars of creativity and, ultimately, organisational performance. Meta-analysis on OBSE literature (Bowling et al., 2010) highlighted the importance of job complexity, autonomy, and leadership, as well as other factors of support and pay. Thus, HR departments need to understand that a broad number of factors can positively shape OBSE and creativity behaviours, and, therefore, hiring job candidates with high OBSE may not be sufficient – additional workplace factors supporting employees and their creativity is needed.

For researchers, our findings around moderating effects of perceived supervisor support challenge behavioural plasticity theory (Brockner, 1988), where it was expected that employees with low OBSE would react more purposefully to external cues (perceived supervisor support), but this was not supported. Given our findings are counter to the expected effects, we urge researchers to examine support perceptions – both supervisor and at the organisational level (Rhoades & Eisenberger, 2002) – to determine whether these counter effects hold with other forms of support. If so, this might suggest that organisational support theory could triump the expected effects of behavioural plasticity theory, or at least highlight that different factors might trigger different effects. Importantly, our findings do challenge typical interaction effects found in the OBSE literature (e.g., Pierce et al., 1993) and might highlight the importance of reciprocity, whereby high OBSE employees react more positively to a supportive supervisor. We encourage further replication of these effects and perhaps extensions into support at the organisational-level, to capture global perception of support.

Future research might explore other factors, such as leadership (e.g., ethical leadership) to determine whether its influence on OBSE follows the expected effects under behavioural plasticity and conservation of reosurce theories. Thus, it might be that it is the immediate supportive nature of leaders – and not some other distinct form of leadership behaviour (e.g., ethical, transformational) – that triggers intensification effects for high OBSE employees.

Furthermore, greater exploration of moderated mediation effects is encouraged to provide insights around boundary conditions.

Limitations

Limitations of the present study include cross-sectional data although the use of higher-level statistical analysis (CFA and SEM) minimises the potential of common method variance (CMV) (Haar et al., 2014). In addition, towards CMV, Evans (1985) asserts that moderation effects are less likely to be found if CMV is an issue, which also alludes to CMV not being an issue. Finally, we acknowledge that the data was gathered via a panel, and while such approaches appear to produce findings that aligns similarly with data from conventional methods (e.g., Ng et al., 2019), some critics (e.g., Yang et al., 2010) have highlighted potential issues with panel data. In response to these issues, we followed the recommendations of Podsakoff et al., (2003), and undertook the Lindell and Whitney (2001) procedure. This involved conducting a partial correlation while controlling for a construct unrelated to the relationships studied (career planning, 3-items by Gould, 1979, sample item "My career objectives are not clear", α= .76). This analysis showed no change on the strength of correlations, indicating CMV is not likely to be evident (as per Haar & Spell, 2009). Finally, our large sample and broad range of New Zealand respondents across industries and professions does provide confidence in the findings.

Conclusion

The present study contributes to the understanding of how OBSE interacts with perceived supervisor support, and how these factors influence creativity behaviours through meaningful work as a mediator. Given the links between employee creativity and organisational success, we suggest these findings highlight some ways that organisations can encourage greater employee creativity behaviours. Our study also improves our understanding of the process of creativity behaviours through finding mediating effects (meaningful work) and moderating effects from perceived supervisor support. The moderated mediation effects further highlighted the value of perceived supervisor support as a boundary condition and highlights the potential complex interplay between factors to achieve superior creativity. Finally, our findings challenge an established theory around the role of external factors on OBSE, which encourages further testing of interaction effects. Overall, the present study offers insights into how we might understand the process towards realising greater creativity behaviours in organisations by considering a combination of factors.

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