

**The Complementary Effects of Social Resources
on Increasing Positive Employee Engagement**

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Abstract

While the value of social resources are well known within the organization behaviour literature, the complementary and concurrent effects of combining social resources (SR) remain a matter of conjecture especially in the psychology literature. Although the conservation of resources (COR) literature has made more transparent the spiralling effect of resources over time including how resource caravans potentially lead to greater performance outcomes, study outcomes are equivocal as to how SRs combine in ways that lead to increased employee engagement beyond their more sequential effects. In the current paper, we studied the effects of SC resources on the positive work engagement of 273 Australian workers using structural equation modelling. Our preliminary study found that social support, social capital and workplace inclusion have concurrent effects as resource caravans in terms of increasing positive employee engagement helping to broaden COR theory by adding a more nuanced understanding of the effects of social resources.

The Complementary Effects of Social Resources on Increasing Positive Employee Engagement

Introduction

This preliminary study examines how cultivating a suite of social resources consisting of social support, social capital, and workplace inclusion, offers a beneficial strategy for HR professionals to use to enhance employee engagement within their workforces. Employee engagement (EE) is a valuable workplace attitude for optimising workforce capabilities (Bailey, 2022; Davis & Southey, 2024), particularly as organisations cope with impacts from the Covid-19 pandemic (Zacher and Rudolph, 2021), address global labour shortages and pressures to retain existing staff (Fernandes et al., 2023), adapt to workplace change, remote work and technological disruption (Ancillo et al., 2023), and manage employee burn-out and work exhaustion (Yeves et al., 2022). In the current climate, EE can play a key role in improving both the general wellbeing of employees and their performance (Boccoli et al., 2023), yet tensions, such as those listed above, have the potential to undermine a worker's experience of EE as an accessible 'job resource' to counterbalance the resource stresses (Hobfoll et al., 2018), that employees are encountering at work.

This paper draws upon conservation of resource (COR) theory to demonstrate that EE can be cultivated by optimising the *concurrent effects* – as opposed to the cumulative effects – of a selected suite of social resources. Specifically, we examine the interplay between social support (Jolly et al. 2021), social capital (Soane et al., 2012; Decuyper and Schaufeli, 2020), and workplace inclusion (Ferdman, 2017; Shore et al., 2018; Metz et al. 2022; Garg and Sangwan, 2020), describing them as 'resource caravans' that travel together (Hobfoll et al., 2018) to bolster EE. Definitions of these and other major concepts used in this paper are provided in **Table 1**. Here, we explore an existing research gap related to how *packages* of social resources can combine to support a goal (Halbesleben et al. 2014), such as in the work context by enabling individuals to enhance their sense of EE. This aim extends research by Schmidt and Keil (2013), Hakanen et al. (2011), Halbesleben and Wheeler (2015), and Malik and Garg (2020), representing how various job resources increase in value that in turn influence work outcomes. Our findings identify implications for designing HR practices that can bolster resource gains for increasing EE.

At present, workplace inclusion has not, to our knowledge, been included in studies measuring EE. Further, beyond the health-context research, such as in studies by Jutengren et al. (2020) and Othman and Nasurdin, (2013), the effects of social resources on EE is ambiguous in the literature with further studies necessary to assess their effects across industry contexts. The upcoming conceptual diagram in **Figure 1** illustrates that this paper addresses a weakness in the literature and practitioner knowledge as to the *concurrent* impact of workplace inclusion, social support and social capital on EE, when these resources are packaged as 'resource caravans'.

Table 1 about here

Conservation of Resources (COR) Theory

Theoretically underpinning this paper is the conservation of resources (COR) theory (Hobfoll et al. 2018). The fundamental tenet of COR theory is that “people will strive to obtain, retain,

foster and protect things they centrally value”, i.e., resources (Hobfoll et al. 2018, p. 106). Resources can be object/physical, condition, personal, or energy, with the propensity for resource ‘loss spirals’ to be much faster and more powerful than resource ‘gain spirals’ that develop more slowly and are intrinsically weak. When a person’s resources are repeatedly threatened or eroded, it creates a loss spiral to the point of desperation in which the person, ironically, needs to invest more resources in order to conserve resources. At this point, the desperation principle posits that to ‘preserve the self’, a person engages in defensive behaviours which might extend to withdrawal or becoming aggressive and/or irrational (Hobfoll et al. 2018, p. 106). The COR theory suggests that during this defensive withdrawal time, a person can wait for the stressor to pass, wait for further assistance, and/or find a new coping strategy (Hobfoll et al. 2018).

Perhaps though, the propensity for a resource loss might be reduced or stabilised in workplace settings if specific combinations of resources are available to a person. This ideation refers to Hobfoll et al.’s (2018, p. 106) description of ‘resource caravans’ in which *“resources do not exist individually but travel in packs, or caravans, for both individuals and organizations”*. Packaging different forms of workplace supports could potentially create resource caravans that combine to produce a goal oriented outcome (Halbesleben et al., 2014). Resource caravans, for instance, were evident in a package of three (3) resources consisting of: coworker support, supervisor support, and ‘thriving at work’, that lead to positive effects on Chinese workers’ life satisfaction (Zhai et al., 2020). In essence, COR theory posits that resource caravans supply concurrent and combinative resources in pursuit of a positive outcome. Thus, as illustrated in the conceptual diagram in **Figure 1**, ‘resource caravans’ are analogous to how a caravan of tethered pack camels carry essential supplies through harsh desert landscapes to reach a far-off place. Similarly, packaging a supply of *social resources* consisting of social support, social capital, and workplace inclusion, transports essential EE sustaining resources for employees as they navigate periods of resource scarcity or instability.

Figure 1 about here

It is commonly accepted that EE relies upon resources that enable people to better control work demands and the work environment (Bakker et al., 2014; Kim and Kang, 2017) helping to reduce burnout, stress, and withdrawal. And, while research related to how resources can accumulate to provide resource gains has received growing interest in recent times (Zhai et al., 2020; Kidron and Vinarski-Peretz, 2022), scholars have stopped short of investigating the *concurrent* effects of resource caravans on EE and identifying which types or mix of resources might travel well together to influence outcomes (Hobfoll et al., 2018; Halbesleben et al., 2014). Exactly how resources might be distributed in workplaces is not well known (Fujimoto et al., 2023). Thus, the extent to which individuals may not always be able to best utilise their resources (Kidron and Vinarski-Peretz, 2022), suggests that a significant gap in the literature relates to characterising the packaging of resources. Based on previous studies that have shown how personal intrinsic resources such as self-esteem, optimism, and self-efficacy are closely tied to social resources such as mutual trust, respect and understanding amongst peers (Jolly et al., 2021), it can be anticipated that other combinative features within the personal and social resources will need to be fostered and nurtured concurrently over time (Zhang et al., 2022).

The benefit of identifying resource caravans responds to the challenge that some resources will be enhanced only if they come *after* other resources (Schmidt and Keil, 2013), which suggests that resource investment is a sequential chain-like process of acquiring new resources (Hakanen et al., 2011). According to this line of thinking, people self-regulate and need to choose the right resources to build and protect their existing resources (Hobfoll et al., 2018). However, a self-regularity focus leads to differential behavioural outcomes. For instance, some individuals might adopt a *promotion* focus if working on a task is perceived as a gain, or conversely, adopt a *prevention* focus if working on a task is perceived as a loss (Wallace and Chen, 2006). This indicates that despite COR principles suggesting that workers should be able to draw from their existing pool of resources to recover losses, according to extant research, this may not be enough as individuals may neither access nor self-regulate their use of resources sequentially to the extent that they can prevent a downward spiral towards more losses.

Job demands associated with the physical, psychological, social, and organisational requirements of work create job stressors and negative engagement (Macey and Schneider, 2008) which need to be offset by a sufficient supply of job resources (Bakker and Demerouti, 2007). Consistent with extant research, inspiring, strengthening, and connecting workers through a supply of *social resources* can contribute towards EE accrual (Jolly et al., 2021; Soane et al., 2012). We focus on social resources in this paper because, along with reduced job demands and other organisational resources (such as better job design, more pay), social resources that include factors such as supervisor and co-worker support are associated with positive EE (Rahmadani and Schaufeli, 2022), resulting in better overall social experiences (Elfenbein and Zenger, 2014). Workplace inclusion means that workers have equal access to valuable resources (Fujimoto et al., 2023), thus as a resource in and of itself – workplace inclusion must be present for social support and social capital to contribute to positive EE outcomes.

Employee Engagement (EE)

It is perhaps helpful to the practitioner reader to think of EE from *a practitioner's perspective* that '*EE might be the level of a worker's enthusiasm, involvement and satisfaction with their work*' (Bailey et al., 2022, p. 3). The reason being is that EE is often used interchangeably with the terminology, 'work engagement', although EE tends to represent the broader view of job *and* organisational engagement (Rahmadani and Schaufeli, 2022). Many view EE as a crucial job attitude associated with both worker well-being and organisational productivity (Bailey et al., 2022), that manifests as collections of thoughts, feelings and behaviours (Kahn, 1990). The literature on engagement often presents overlapping terminology such as personal engagement (Kahn, 1990; Rich et al., 2010), work or job engagement (Schaufeli et al., 2002; Schaufeli and Bakker, 2010), and EE (Saks, 2006; 2019), using a variety of definitions such as a 'positive, fulfilling, work-related state of mind characterised by vigour, dedication, and absorption' (Schaufeli et al., 2002).

We adopt the view that EE is an outcome (Bailey et al., 2022; Saks, 2006, 2019; Shuck, 2011) assigning it the dependent variable in our analysis. We agree with Saks (2006, 2019) multi-dimensional view of EE, meaning, workers can dually engage with both their job, and/or their organisation. In addition, as **Figure 1** depicts, we view that Soane et al.'s (2012) idea of 'social engagement' provides a third dimension upon which workers experience EE. Soane et al. (2012, p. 531-2) developed the ISA Engagement Scale measuring three facets of engagement – affective, intellectual and social. Affective engagement, i.e., a positive regard towards one's work role, and intellectual engagement, i.e., absorption in one's

work, align closely with Saks' (2006) conceptualisation of 'job engagement'. However, Soane et al.'s (2012) social engagement is not as clear in Saks' (2006) two dimensions of EE. Social engagement is the "extent to which one is socially connected with the working environment and shares common values with colleagues" (Soane et al. 2012, p. 532). It supports better self-in-role experiences and the extent to which a person feels connected (Kahn, 1990), and motivated to achieve positive work outcomes (Halbesleben and Wheeler, 2015).

Social support

Workplace social support is embedded in the relationships an employee forms with peers, colleagues, supervisors, and management (Halbesleben et al., 2014; Hobfoll et al., 2018). It is through these connections that employees receive both psychological and material resources, as a benefit of their social interactions (Jolly et al., 2021). Social support can improve coping, esteem, belonging and competence and manifests through interactions, exchanges and relationships through which a person can - or perceives they can - access tangible help or assistance from others (i.e., instrumental support), along with informational support (such as facts, instructions), emotional support (such as empathy and care), and constructive feedback (Nielsen et al., 2020; Jolly et al. 2021). Nielson et al., (2020) found that social support cushioned the impacts of workplace bullying on a workers' health and competence, while other researchers have found that social support can mitigate stress-related work or study (McClellan et al., 2022), increase psychological wellbeing (Poudel et al., 2020), lower mental health risks (Karaca et al., 2019), and aid employees to accumulate job resources by empowering them to engage in proactive behaviours (Guan and Frenkel, 2019). Therefore, we hypothesise that the focus and dedication associated with EE is more likely to occur in circumstances where employees can benefit from the positives that social support networks provide, such as reduced work stress, facilitating stronger emotional well-being and sense of belonging, and access to information and feedback to solve problems and to cope with challenges.

H1a: *Social support (SS) and employee engagement (EE) are directly and positively related.*

Social capital

Social capital comprises two dimensions, *cognitive* and *structural*, with the cognitive dimension capturing employees' perceptions regarding trust, solidarity and reciprocity. The structural dimension reflects employee network interactions, mutual accountability, and transparent decision-making processes that exist (a) among peers, i.e., *bonding* social capital, and (b) among individuals across hierarchical levels and organisations, i.e., *bridging* social capital (Jutengren et al. 2020; Tsounis et al., 2023). The relationship between social capital and EE thus far has not been a high priority in existing engagement studies, except for a number of investigations within the health and medical related contexts (Kouvonen et al., 2006; Jutengren et al., 2020). Scholars suggest that managers who cultivate social capital in their organisation as a resource are more likely to manifest a higher level of perceived organisational performance (Kidron and Vinarski-Perez, 2022, p. 3) and job performance and engagement (Tsounis et al., 2023). Extant research has also found empirical associations between COR theory and social capital as one resource that correlates positively to other valuable resources (Habets et al., 2021). Therefore, as social capital comprises of an employee's network of trusted relationships and goodwill with other people in relation to their work, we contend that social capital acts as an enabler of positive EE, leading to the following hypothesis.

H1b: *Social capital (SC) and employee engagement (EE) are directly and positively related.*

Workplace inclusion

People with distinct backgrounds can provide specialist and much needed expertise (Pelled et al., 1999) thereby enriching the diversity of thought and workplace innovation opportunities. However, organisations that aim for workforce diversity can still fail to foster workplace inclusion. Ferdman (2017, p. 235) broadly defined *workplace inclusion* as those organisations in which, "*people of all identities and many styles can be fully themselves while also contributing to the larger collective, as valued and full members.*" Inclusion practices seek to create equal access to decision-making, resources, and upward mobility opportunities for the diversity of individuals (Shore et al., 2018). Workplace inclusion means that everyone should have a voice, especially those in previously stigmatised, subordinated, or disregarded categories to express themselves in authentic ways, whilst ensuring that a greater range of people and groups feel safer and more at ease (Ferdman, 2017, p. 256). Inclusion provides individuals with access to information and resources (Ferdman, 2017) enabling better representation and fairness (Shore et al., 2018), whereby all workers are treated as insiders (Pelled et al., 1999). In a recent study on inclusion within professional associations, Metz et al., (2022) found that most respondents had experienced both inclusion and exclusion in some form that was associated with, among other resources, their access to social capital suggesting that social capital was important for inclusion while lack of access attenuates exclusion factors.

Resource caravans allow the cumulative resources to travel together (Bakker et al., 2014). Personal resources are likely to result from supportive social conditions (Jabeen et al., 2021), that foster social support (Jolly et al. 2021), and inclusion (Ferdman, 2017), that in turn has a positive effect on EE. At the same time, the interrelationships that occur within social capital (i.e., bonding, bridging and linking) suggests that individuals will see value in connecting personal resources by bonding with colleagues and linking across hierarchical levels. Thus, social capital offers a valuable resource since it is related to how co-workers collectively increase their relational skills through social support (Jolly et al., 2021; McClean et al., 2022). Also, given that social support is evident by how peers communicate and relate, this suggests that social capital is a valuable concurrent resource along with the source of social support, where one resource needs the other. Taken together, we suggest social support and social capital would need to act as concurrent and interactive resources that have cumulative effects on outcomes. Above all, because of the positive effect that inclusive behaviours are expected to have on fostering a sense of belonging among employees, we propose that workplace inclusion should mediate the interacting effects of social support and social capital on EE as outlined in the following hypothesis:

H2: *Workplace inclusion (INCL) mediates a positive indirect effect of the interaction effect of social support (SS) and social capital (SC) on employee engagement (EE).*

Method

Data collection and sampling

Upon gaining the mandatory ethical approval required to pursue research with human participants, an online survey was made available for a period of six months from June to December 2021. The survey was circulated to a conglomerate of organisations ranging from IT and professional accounting firms, government agencies, education, service, and other general manufacturing firms through a purposive sampling method. Correspondence was first made with key decision makers who agreed to promote the survey within their respective

organisations. The survey returned 330 responses. Upon assessing missing data and completion errors, 273 completed surveys were retained for analysis ($n = 273$).

Construct Measures:

Item constructs for analysis were sourced from existing empirically valid scales where all items were measured on a 7-point Likert scale ranging from 1 to 7 anchored by the terms: Strongly Disagree; Disagree; Slightly disagree; Neither agree nor disagree; Slightly Agree; Strongly Agree.

Employee Engagement (EE): Saks (2006, pp. 617-618) multidimensional engagement scale was used to measure EE as well as Soane et al.'s (2012) measure of 'social engagement' dimension of EE. Saks (2006) distinguished two measures: an individual's job engagement with sample items included: 'This job is all consuming', 'I am totally into it' and an individual's organizational engagement with example items being: 'One of the most exciting things for me is getting involved with things happening in this organization', 'Being a member of this organization makes me come 'alive''. Plus, Soane et al.'s (2012) social engagement scale with sample items including: 'I share the same work values as my colleagues', 'I share the same work goals as my colleagues', and 'I share the same work attitudes as my colleagues'.

Workplace Inclusion (INCL): The INCL scale was sourced from Bupp's (2017) inclusion at work scale and Pelled et al.'s., (1999) eight-item demographic dissimilarity and workplace inclusion scale. The former included variables related to co-worker inclusion as valued peers in the core group, for example, 'I feel excluded by the workgroup because I am different' (reverse coded); 'co-workers are treated as valued members of the team without losing their unique identities', and 'within my work group I am encouraged to offer ideas on how to improve operations'. Pelled et al.'s., (1999: p. 1021) items measured both influence and access to information, for example: 'I have influence over decisions about ways to improve productivity', and 'I am well-informed about my organization's goals'.

Social Support (SS): The SS scale was sourced from the Karasek et al., (1998, p. 355) seven item social support scale designed to assess *co-worker* social support in the workplace. Sample items included: 'when it is necessary, I can ask my colleagues for help,' 'I feel appreciated by my co-workers' and 'there is a good atmosphere between me and my co-workers'.

Social Capital (SC): The SC scale was sourced from Kouvonen *et al.*, (2006: p. 4) nine item psychometric evaluation of social capital at work scale representing bonding, bridging, and linking, with sample items including: 'we have a 'we are together' attitude,' 'people across departments cooperate in order to help develop and apply new ideas' and 'we can trust our supervisor'.

Descriptive Statistics

Table 2(a) demonstrates the diversity of the respondents. Sixty-six percent (66.3%) were female, with just over a quarter of all respondents aged 40 to 49 years-of-age (27.1%), and 50 to 59 years-of-age (26.1%), respectively. Nearly two percent (1.9%) of the participants identified as Aboriginal and/or Torres Strait Islander which is not dissimilar to the June 2021 Census figures reporting that Aboriginal and/or Torres Strait Islander persons account for 3.8% of the Australian population, of which 66.2% (two-thirds) are aged 15 years and above (ABS 2021a) and from which 54.1% of them are in the labour force (ABS 2021b). More broadly, 8.8% of respondents identified that they have a diverse ethnic/cultural/racial background, with 13.6% speaking a language other than English at home. Five percent

(5.1%) identified as neurodiverse, 5.5% of respondents indicated that they had a disability, with an additional 11% identifying that they had a long-term health condition or chronic illness. Just over 8% of respondents provide caregiving for parents/adults and 25.3% for children.

Table 2a about here

Additionally, Table 2(b) profiles the respondents' work environment, including industries and sectors represented by the respondents, seniority, employment duration and remote working situations.

Table 2b about here

Normality and common method variance (CMV) assessment

Since data were collected using a single source, it could be deemed to suffer from common method variance. Results for common method variance were checked using multi-trait-multimethod model (MTMM) proposed by Byrne (2016) the substantial or large change in Comparative Fit Index (CFI). Hence, we first tested the issue of common method variance by following the suggestions of Byrne (2016) by testing the model designed with the Correlated traits/correlated methods (CFI = 0.846) and the model constructed with Freely correlated traits/uncorrelated methods (CFI = 0.860). The P-value of 0.358 for Chi-squared distribution test suggests that the presence of common method variance is highly unlikely (Collier, 2020). Secondly, following Kock (2015), all the variables were regressed against a common variable and if the $VIF \leq 3.3$, then there was no bias from the single source data. Tables 3a and 3b record the VIF for all latent variables loading for the 1st order measurement models. With the VIFs less than 3.3, the dependent variable's (EE) three dimensions showed no serious issues with the data for either a single source bias or multicollinearity (Cassel et al., 1999). Both robust tests reported in Tables 4a and 4b showed that the data collected did not suffer from common method bias.

Data Analysis

A two-step approach to analysing the data using IBM SSPS AMOS version 27 software was used. Firstly, several confirmatory analyses first order measurement models were constructed for the responses for the measured items in the data collection process. Tables 3a and 3b provide the items that loaded onto each latent independent variable (social support - SS, social capital - SC, and workplace inclusion - INCL) as well as the three dimensions proposed to form the dependent variable, employee engagement (EE).

First-order measurement model assessment

In the current model, all first-order constructs assessment criteria were for evaluating measurement models was assessed through the indicator reliability, convergent reliability, internal consistency, and discriminant validity (Hair et al., 2017). Table 3a and 3b contain the following statistics. Firstly, all indicator loadings > 0.5 suggested indicator reliability (Hulland, 1999, p. 198) meaning only the listed items were retained. Secondly, convergent reliability with AVE values exceeding 0.5 (Bagozzi and Yi, 1988) as the assessment of discriminant validity were checked while all latent variables had a composite reliability above 0.7 indicating adequate convergence or internal consistency (Gefen et al., 2000). Additionally, for brevity, four commonly used advanced goodness-of-fit measures were included to support the 'fit' robustness of all the measurement models in Table 3a, 3b, 3c and 5. These tests are: (1) standardised RMR (SRMR) where < 0.05 represents a well-fitting model (Byrne 2016); (2) goodness of fit index (GFI) requiring a value of > 0.9 for each indices (Tabachnick & Fidell 2006); (3) comparative fit index (CFI) requiring a value of between > 0.9 (Tabachnick & Fidell 2006) and ≥ 0.95 (Hu & Bentler 1999) for each indices;

and (4) root mean square error of approximation (RMSEA) as one of the most informative criteria with a desired value of $\leq .08$ (Tabachnick & Fidell 2006).

Table 3a about here

Table 3b about here

Second-order measurement model assessment

A two-stage approach was employed to assess the second-order measurement model. Table 3c provides the four commonly used advanced goodness-of-fit measures, and a summary of each statistical measure's purpose, to support the 'fit' robustness of the measurement models.

Table 3c about here

The ratio of correlations is used to assess discriminant validity in Tables 4a and 4b. There are two ways to use the HTMT to assess discriminant validity: (1) as a criterion or (2) as a statistical test. As shown in Table 4b, all HTMT values are below .90 and therefore passed both recommended values, i.e., the HTMT.85, (Kline, 2011), and the HTMT.90, (Gold et al., 2001).

Table 4a about here

Table 4b about here

Results

The results for the structural model to test the three hypotheses is provided below, with statistically significant outcomes that will be presented and illustrated in **Figure 2**.

Figure 2 about here

Structural equation model (SEM) assessment and hypothesis testing

The SEM goodness-of-fit is the first assessment stage of the results process for this study. Although the initial SEM constructed contained all the paths to test the three hypotheses and the results support all paths as significant, all the goodness of fit criteria did not achieve the selected advanced goodness-of-fit measures (SRMR = 0.0000, GFI = 1.000, CFI = 1.000,

RMSEA = .617) identified in prior studies. A revised SEM was constructed that provided a match to the criteria for the selection of goodness-of-fit statistics, which provided in Table 5 support the robustness of this revised SEM. Secondly, Table 5 provides the results for all hypotheses.

Table 5 about here

Hypothesis 1a (H_{1a}) relates to the direct relationship between SS and EE. SS shows a positive sloping Beta ($\beta = 0.298$) and significant effect on EE ($p = 0.000$), meaning H_{1a} is accepted – SS significantly and directly effects EE.

Hypothesis 1b (H_{1b}), relates to the direct relationship between SC and EE and while the result for the initial SEM provided SC has a positive Beta ($\beta = 0.163$) with a significant effect at 0.037 ($p = 0.037$) on EE, the revised SEM required this direct path SC and EE to be removed to produce a robust good fitting SEM. This revised SEM means H_{1b} is not accepted.

Hypothesis 2 (H_2) related to the indirect relationship between the interrelationship of SS and SC on EE that is mediated by INCL and testing was undertaken, initially using a one-way directional path in the SEM of SS to SC. As hypothesised, the results in Table 5 confirmed significant SS to SC interactive one way path at 0.775 ($p = 0.000$). For completeness, an alternative one-way directional path in the SEM of SC to SS illustrates the same significant SC to SS path at 0.775 ($p = 0.000$). A further alternative SEM using the two-way co-variant of SS and SC produced a similar path at 0.772 ($p = 0.000$). These results support the statistically significant and moderately positive interrelationship between SS and SC meaning that if one variable increases, the other tends to increase suggesting that the relationship between SS and SC occurs concurrently and reciprocally and not by random chance.

The SEM results used to assess the mediating effect of INCL component of H_2 shows SS with a positive sloping Beta ($\beta = 0.135$) with a significant effect on INCL ($p = 0.044$) as well as SC shows a positive sloping Beta ($\beta = 0.606$) with a significant effect on INCL ($p = 0.000$) and INCL to EE have a positive sloping Beta ($\beta = 0.473$) and significant effect on EE ($p = 0.000$), contributing towards H_2 acceptance. The total effect calculation of 0.906 for combined direct and indirect paths shows a high level of influence of SS both directly on EE as well as through INCL and SS on EE. Similarly, a total effect calculation of 1.079 is achieved for SC indirectly on EE through INCL.

Discussion

This is the first study to our knowledge that illustrates the *concurrent* effects of social resources on positive EE by illustrating the direct and indirect effects of social support, social capital and workplace inclusion on EE, consequently building on COR theory related to ‘resource caravans’. In addition to previous research that shows resource acquisition is sequential (Schmidt and Kiel, 2013), or chain-like (Hakanen et al., 2011), our model indicates that separate resources create better value when available concurrently, illustrating a potentially more efficient way to acquire resources to mitigate resource losses. Our model did show that while social support directly increases EE ($\beta = 0.298, p = .000$), once employees also feel a sense of workplace inclusion, the power of social support to increase EE rises markedly ($\beta = 0.608, p = .000$) to a total effect β of 0.906. The ability of social capital alone to directly contribute to improving EE is not apparent. *However*, and key to demonstrating

the beneficial nature of resource caravans, once social support and workplace inclusion resources are available, these resources ‘activate’ an ability for social capital to contribute positively towards EE (a total effect β of 1.079 through resources whereby SC to INCL $\beta = 0.606$ plus INCL to EE $\beta = 0.473$, $p = .000$). Further evidence of the resource caravan effect is that our model identifies that social support and social capital are interdependent in nature, influencing and reinforcing each other ($\beta = 0.77$, $p = .000$). Thus, while social support provides the resources that encourage or motivate individual employees to create and strengthen their connections with others across and beyond the organisation, the social capital that these connections communally create in return foster social support by providing individuals with a sense that they are being cared for as a member of a socially supportive network.

COR research suggests that the literature remains ambiguous about the timing and order in which resources are acquired (Halbesleben et al., 2014; Halbesleben and Wheeler, 2015; McClean et al. 2022), and the dynamics of resources in general pertaining to organisational settings (Kim and Kang, 2017; Kidron and Vinarski-Peretz, 2022). While the current research cannot answer all of these questions based on the research design, we broaden the COR literature by demonstrating the *types* of resources that travel together in caravan passageways for the purposes of building EE. While we cannot make conclusions that social capital and social support are substitutable, we do suggest that these resources are complementary to the extent that concurrent access to them builds the cumulative value of resources (Schmidt and Keil, 2013). Principally, our model confirms that without employees feeling included at work, the benefit of a resource caravan effect on EE will not occur. This is an important finding within the context of assessing EE antecedents as this is the first study to our knowledge that sheds light on a powerful influence that workplace inclusion can have on EE, answering calls by scholars to address inclusion in engagement studies (Garg and Sangwan, 2020).

Hobfoll et al. (2018) suggests that social resources are formed through nurturing and learned adaptation and accompanied by co-travellers to create a reciprocal effect. Thus, with the reciprocal nature of social support and social capital behaviours shaping and converging with individuals who feel engaged at work, these individuals can shape EE behaviours in their interactions with social partners. It is also paramount that fostering inclusive work behaviour concurrently with social support and social capital behaviours can heighten the positive effects on EE. The work environment needs to be grounded in mutual trust, respect, and obligation to improve the bonding aspects of social capital, which according to scholars empowers and motivates both followers and leaders to expand their relationship beyond the formalised work role and contract (Mäkelä et al., 2021). In turn employees will be more likely to feel the social support from more personalised interactions that assists them to identify better with their jobs and organisation (Mäkelä et al., 2021). While strong network bonding may at times result in network closure, i.e., exclusion, moreover, this is not always the case, and with workplace inclusion in the mix, strong bridging and linking relationships can help employees to build individual resources (Elfenbein and Zenger, 2014).

Implications for HR Practice

It appears that it is vital that employees are actively sponsored to enhance their social resources if managers wish to cultivate EE within their workforces, and key to achieving this is to foster a climate of inclusivity (Shore et al., 2018). The necessity to create inclusion as a cultural norm in the workplace is further underscored with recent regulatory updates requiring Australian organisations to manage psychosocial safety risks within its workforces (WHSQ 2022) and to take proactive ‘positive duty’ steps to prevent sexual harassment,

discrimination and victimisation before it happens (AHRC 2023). This means that managers need to prioritise and manage psychosocial safety and mental wellbeing which in part requires all employees to have a full sense of participation and being equally seen, valued and supported as an organisational member (Shore et al. 2018). Fostering a sense of belonging through social support and social capital are at the nexus of both worker engagement and inclusive cultures. Fostering positive relationships can involve, for instance, providing opportunities for employees to meet and engage with their colleagues and beyond to others working in the industry, and by championing values of authenticity, respect and collegiality amongst staff (Shore et al., 2018; Zhang et al., 2022).

It is challenging for employees to build resources, yet easy to lose them (Halbesleben et al., 2014; Hobfoll et al., 2018), particularly in organisations that lack attention to creating an inclusive culture and taking an interest in employee wellbeing. Notwithstanding that authentic inclusivity comes with tensions and challenges, HR professionals need to respond to the social discourse and broader community expectations to implement inclusive mechanisms that support employees (Ferdman 2017; Metz et al., 2022). Thus, to foster workplace inclusion, attention needs to be paid to macro, meso and micro processes and manage the duality of *'how can we be both alike and different simultaneously?'* (Ferdman, 2017, p. 243). HR practitioners can create and/or modify HR systems, policies and practices so that they disrupt and challenge subliminal biases, particularly as 'legitimate workplace structures' can benefit stereotyped employees (Murray and Southey, 2020). For example, 'caring HRM' systems (Saks, 2022) and high performance HR practices (Boxall et al., 2019) can steer organisations towards creating systems that recognise the benefits of diversity and intergroup relations. Ferdman (2017, p. 238) advises that inclusion *'builds on prior conceptions of pluralism and multiculturalism and provides a counterpoint to assimilation'*, by creating a culture that embraces the coexistence of multiple values, perspectives, styles, and means of accomplishing goals within the same social system.

Organisations can expect that different dimensions of diversity or groups will require different social support strategies (Ferdman, 2017), which may involve customising interpersonal and supervisory training, increasing internal mobility and career development, providing clear job descriptions, and voice opportunities (Zhong et al., 2016). Moving beyond compliance and diversity headcounts, HR professionals can monitor organisational policies and processes for systemic blind spots that mask inclusive access to social and capital resources. HR professionals can purposely promote inclusion initiatives aiming to assist individuals who struggle to access and create interpersonal connections and build social networks and resources. This could involve tactics such as habitually using a triple communication plan to broadcast opportunities across multiple channels, multiple times (Mitchell, 2017). Such opportunities can include workshops to hear from employees, systems for involving them in decision making, and recognising, honouring and advancing diversity (Shore et al., 2018). In addition, providing knowledge and information to employees about personal and career development opportunities is clearly needed such as awareness and training related to improving intercultural communication, managing difficult conversations, understanding group formation processes, connecting people through formal mentorship and coaching programs, social clubs and work-based community intranets. Taken together, it is crucial for HR professionals to act promptly to build a foundation of diverse, equal, and inclusive HRM systems that intercede to build resource caravans that empower employees to acquire healthy degrees of social support and social capital, as catalysts for enhancing EE within their organisations.

Study Limitations and Future Research

While the profile of survey responses represented people who identified with a range of diversity groups, it did not always mirror their profile in Australia's population. The sample also skewed towards female respondents (66%) and people working in education and training. This research is also a product of and limited to the three forms of job resources that were selected for examination. This means that the hypothetical model did not incorporate other worthy job resources or environmental factors that may have potential to travel as 'resource caravans' to benefit EE, for instance, decision latitude, autonomy, job security, job clarity, organisational communication and even the physical environment. Therefore, future research can consider other resource caravans that might travel together to support EE more effectively and strongly, including longitudinal effects of resource caravans over time. There is also an avenue to consider the converse of 'resource caravans' and study the deleterious impact that compounded job demands may have on EE, i.e., where two or more job demands produce a combined negative effect greater than the sum of their separate effects. Last but not least, Truss et al., (2013, p. 2664) discussed how engagement research tends to assume a unitarist perspective where there are concerns about the legitimacy of this frame of reference in times of work intensification and changing employment relationships. Therefore, research is necessary to consider how engagement theory or practices might be challenged by the competing tensions between workers and employers, particularly for those workers who are members of marginalised and stigmatised groups where normative engagement policies may overlook their needs.

Conclusion

Cultivating an environment in which EE can flourish is a proactive approach for HR professionals to address the pressures associated with finding, retaining and sustaining a productive and enthusiastic workforce in times of post-pandemic staffing shortages, disruptive change, and mental health struggles, alongside increasing regulatory obligations to care for employees. While HR can find it nebulously challenging to cultivate personal resources that are intrinsically derived within the employees' psyche, such as happiness and resilience, the package of social resources discussed in this paper are manifestly within HR's grasp. This study tested the logic that social support, social capital, and workplace inclusion need to travel together as a package, i.e., all must be present, to operate efficiently as valuable resources that help to create positive EE conditions. Within the resources we examined, we identified that workplace inclusion is the steroid of social resources for building EE within the organisation. Without employees feeling they are seen for their unique and diverse qualities; the benefits of social support will likely be diluted and social capital rendered futile in the bid to foster employee engagement.

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Table 1. *Summary of Major Constructs*

Construct	Definition
Employee engagement (EE)	<i>A practitioner’s view of EE might be the level of a worker’s enthusiasm, involvement and satisfaction with their work (Bailey 2022, p. 3).</i>
Conservation of Resource (COR) Theory	<i>People seek to acquire and conserve personal, social, and material resources for survival which, in part, helps us understand workers’ behaviours in response to work-related stress (Hobfoll et al., 2018, p. 104).</i>
Job resources	<i>Physical, psychological, social, or organisational aspects of the job that aid in achieving work goals, and/or lessen job demands and associated physiological and psychological costs, and/or promote personal growth and development (Schaufeli and Bakker, 2010).</i>
Resource caravans	<i>The accumulation and coexistence of personal, social, and material resources that ‘travel’ in packs or ‘caravans’ which may result in positive outcomes (Hobfoll et al., 2018; Zhai et al. 2020)</i>
Social resources (at work)	<i>The combination of social support, social capital, and workplace inclusion as specifically examined in this article.</i>
Social support (at work)	<i>An employee’s access to others in their network for help, comfort and/or validation that can be psychological, informational and/or physical in nature.</i>
Social capital (at work)	<i>The communal benefits that employees gain from a collective network of connections within which trustful and reciprocal interactions occur among peers (bonding), and with others from different hierarchical levels and organisations (bridging) (Tsounis et al., 2023).</i>
Workplace inclusion	<i>A process that aims for people of all identities and many styles to be fully themselves while also contributing to the larger collective, as valued and full members (Ferdman, 2017) in the workplace.</i>

Table 2a *Diversity Profile of Respondents*

Demographic	n	%
Gender	Male	86 31.5
	Female	181 66.3

	Non-binary	2	0.7
	Prefer not to say	4	1.5
Age Group (in years)	20-29	34	12.5
	30-39	61	22.4
	40-49	74	27.1
	50-59	71	26.1
	60-69	27	9.9
	70 and above	6	2.2
Speak other language than English at home	No	236	86.4
	Yes	37	13.6
Highest level of completed education	Primary school education	1	0.4
	Secondary school education	18	6.6
	Vocational qualification (Certificate/Diploma)	47	17.2
	Bachelor / Bachelor (Honours) Degree Level	72	26.4
	Postgraduate Level	135	49.5
Origin Identification (Multiple: Base N=273)	Aboriginal	4	1.5
	Torres Strait Islander	1	0.4
	Neither Aboriginal nor Torres Strait Islander	268	98.1
Group Identification (Multiple: Base N=273)	Neurodiverse	14	5.1
	With physical disability	8	2.9
	With mental disability	7	2.6
	With long-term health condition or chronic illness (other than physical or mental disability)	30	11.0
	With care-giving responsibilities to infants/children	69	25.3
	Giving primary or significant care to another adult, such as parent or partner	22	8.1
	From a diverse ethnic/cultural/racial background	24	8.8

Table 2b *Work Environment Profile*

Demographic		n	%
Which industry do you work in?	Agriculture, food, and natural resources	6	2.2
	Education and training	178	65.2
	Business management and administration	13	4.8
	Finance	27	9.9
	Government and public administration	19	7.0

	Health science	1	0.4
	Information technology	14	5.1
	Law, public safety, corrections, and security	2	0.7
	Manufacturing	1	0.4
	Marketing, sales, and service	4	1.5
	Science, technology, engineering, and mathematics	8	2.9
Respondent's responsibility level	Individual contributor with no direct reports	170	62.3
	Frontline manager	39	14.3
	Mid-Senior manager (your direct reports supervise others)	43	15.8
	Executive manager/leader	21	7.7
Which sector does the respondent organization operate?	Public Sector / Government / Gov. services or agency	192	70.3
	Private Sector – For Profit	50	18.3
	Private Sector – Non-Profit	31	11.4
No of people in the respondent's immediate work team/unit/group	0 to 10 people	204	74.9
	11 to 20 people	33	12.0
	Above 20 people	36	13.1
Duration of work with current employer (in years)	Less than a year	2	0.7
	1 to 10	195	72.2
	11 to 20	55	25.7
	21 to 30	18	6.6
	Above 30	3	1.2
Percentage estimate of working onsite (employer's premises or offices)	0-25%	79	28.9
	26-50%	19	7.0
	51-75%	55	20.1
	75-100%	120	44.0
Percentage estimate of working at home/ private residence (%)	0-25%	143	52.5
	26-50%	43	16.2
	51-75%	20	7.3
	75-100%	67	24.0
Working environments as direct reports (Multiple: Base N=273)	100% remote working environments	22	8.1
	100% on employer's premises, office, or worksite	21	7.7
	Split between remote work and employer's worksite	99	36.3
	Don't have any direct reports	134	49.1
	Other	1	0.4

Table 3a Full Measurement 1st order Model Three Independent Latent Variables

Construct	Item ^a	Loadings	AVE ^b	CR ^c	VIF ^d	T-values ^e
Social Support (SS)	SS_1	0.795	0.846	0.910	2.538	0.003
	SS_2	0.875				
	SS_4	0.864				
	SS_5	0.849				
	SS_6	0.912				
	<i>Goodness of fit statistics: SRMR - 0.050; GFI - 0.993; CFI - 0.999; RMSEA – 0.050</i>					
Social Capital (SC)	SC_4	0.875	0.911	0.961	3.254	0.039
	SC_5	0.927				
	SC_6	0.910				
	SC_7	0.923				
	SC_8	0.919				
	<i>Goodness of fit statistics: SRMR - 0.0157; GFI - 0.984; CFI - 0.993; RMSEA – 0.078</i>					
Workplace Inclusion (INCL)	INCL_2	0.849	0.828	0.939	2.049	0.000
	INCL_3	0.879				
	INCL_4	0.796				
	INCL_10	0.786				
	INCL_11	0.865				
	INCL_12	0.806				
	INCL_13	0.823				
	<i>Goodness of fit statistics: SRMR - 0.0096; GFI - 0.995; CFI - 1.000; RMSEA – 0.0000</i>					

NOTES:

- Items removed without loadings > 0.5
- Reflective*: All average variance extracted (AVE) > 0.5 as indicates convergent reliability
- Reflective*: All composite reliability (CR) > 0.7 indicates internal consistency
- Formative*: Variance inflation factor < 3.3
- Formative*: T-Values > 1.96 (*) and sig at 5% for two-tailed test (Peng and Lai, 2012)

Table 3b Full Measurement 1st order Model - Three Dimensions of Dependent Latent Variable (EE)

Dimension	Item ^a	Loadings	AVE ^b	CR ^c	VIF ^d	T-values ^e
Social Engagement (SE)	SE_1	.586	0.633	0.668	1.734	0.000
	SE_2	.658				
	SE_3	.656				
Organisational Engagement (OE)	OE_1	.614	0.706	0.780	1.320	0.000
	OE_2	.712				
	OE_3	.706				
	OE_4	.790				
Job engagement (JE)	JE_7	.815	0.823	0.894	1.500	0.000
	JE_8	.850				
	JE_9	.779				
	JE_10	.850				
	Goodness of fit statistics: SRMR - 0.0426; GFI - 0.936; CFI - 0.974; RMSEA – 0.075					

NOTES:

- a. Items removed without loadings > 0.5
- b. *Reflective*: All average variance extracted (AVE) > 0.5 as indicates convergent reliability
- c. *Reflective*: All composite reliability (CR) > 0.7 indicates internal consistency
- d. *Formative*: Variance inflation factor < 3.3
- e. *Formative*: T-Values > 1.96 (*) and sig at 5% for two-tailed test

Table 3c Full Measurement 2nd order Dependent Latent Variable

Latent Construct	Dimension	Loadings ^a	T-values ^e
Employee Engagement (EE)	Organisational Engagement (OE)	0.753	0.000
	Job Engagement (JE)	0.749	0.000
	Social Engagement (SE)	1.251	0.000
Goodness of fit statistics: SRMR - 0.0426; GFI - 0.936; CFI - 0.974; RMSEA – 0.075			

NOTES:

- a. Items removed without loadings > 0.5
- b. *Reflective*: All average variance extracted (AVE) > 0.5 as indicates convergent reliability
- c. *Reflective*: All composite reliability (CR) > 0.7 indicates internal consistency
- d. *Formative*: Variance inflation factor < 3.3
- e. *Formative*: T-Values > 1.96 (*) and sig at 5% for two-tailed test

Table 4a Discriminant Validity – Fornell and Larcker criterion for latent variables

	SC	SS	INCL	EE
Social Capital (SC)				
Social Support (SS)	0.775 **			
Workplace Inclusion (INCL)	0.711 **	0.604 **		
Employee Engagement (EE)	0.616 **	0.583 **	0.653 **	

** Correlation is significant the level < 0.01 (2-Tailed)

Table 4b *Discriminant Validity – Fornell and Larcker criterion for dependent variable dimensions*

	JE	SE	OE	EE
Job Engagement (JE)				
Social Engagement (SE)	0.486 **			
Organisational Engagement (OE)	0.573 **	0.342 **		
Employee Engagement (EE)	0.869 **	0.740 **	0.799 **	

** Correlation is significant the level < 0.01 (2-Tailed)

Table 5: *Structural Equation Model for Hypothesis Testing*

	Relationship		Estimate	S.E.	C.R.	P- value
INCL	<---	SC	.606	.067	9.083	***
INCL	<---	SS	.135	.067	2.017	.044
EE	<---	INCL	.473	.055	8.665	***
EE	<---	SS	.298	.055	5.453	***
SS	<---	SC	.775	.038	20.281	***
SC	<---	SS	.775	.038	20.281	***
e2 SC	<-->	e1 SS	.772	.076	10.138	***

Goodness of fit statistics: SRMR - 0.0426; GFI - 0.936; CFI - 0.974; RMSEA – 0.075

*** $p = 0.000$

Effects	Direct	Indirect	Total Effect
SS ► EE	0.298		
SC ► INCL ► EE		0.608	
			0.906
SC ► INCL ► EE	0.000	1.079	1.079

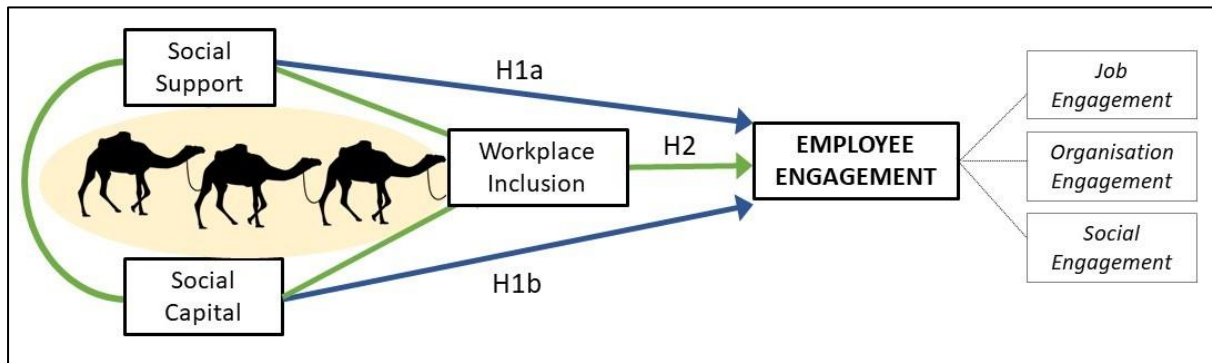


Figure 1. Hypothesised model of resource caravans supplying a suite of social resources for employee engagement.

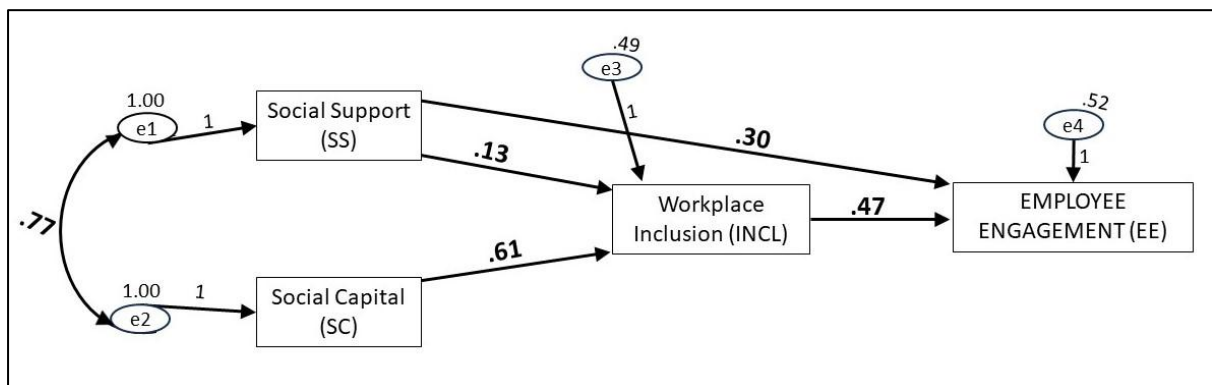


Figure 2. SEM results of the hypothesised relationships (p value < .05)