

Research Master-IDA: Master's Thesis

The Relationship Between Support for Employees' Strengths Use, Work-Related Identity,  
and Self-Efficacy: A Cross-Cultural Study

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### Abstract

The importance of studying the impact of perceived organizational support for strengths use (POSSU) on employees is supported by prior research indicating its positive association with well-being. However, research on the psychological mechanism through which POSSU influences employees and cross-cultural comparisons in this area is limited. This study addressed these gaps in the positive psychology literature through two aims. First, by merging the Job Demands-Resources (JD-R) model with identity and self-efficacy theories, we examined the relationship between POSSU and self-efficacy, and whether this is mediated by work-related identity. Second, we investigated if and how these relationships vary across countries. To answer our research questions and hypotheses, we used cross-sectional, secondary data of workers from the Netherlands ( $N = 383$ ) and Greece ( $N = 190$ ) to conduct multigroup path analysis. The results showed that the relationship between POSSU and self-efficacy was fully mediated by work-related identity. Moreover, the inter-variable relationships were equal across countries. This study contributes to positive psychological theory by revealing a mechanism that specifies how POSSU affects employees across countries. Furthermore, the generalizability of the inter-variable relationships is significant to today's global workforce, which spans across different languages, cultures, and countries. We also offer practical implications regarding increasing POSSU among employees, in order to counteract issues related to work-related identity and self-efficacy. In conclusion, this study demonstrates that POSSU is positively associated with self-efficacy via work-related identity across countries, thereby emphasizing the importance that POSSU plays for well-being.

*Keywords:* POSSU, work-related identity, self-efficacy, cross-culture

The Relationship Between Support for Employees' Strengths Use, Work Identity, and Self-Efficacy: A Cross-Cultural Study

The field of positive psychology involves the mechanisms and contexts that assist people with becoming the best version of themselves (Gable & Haidt, 2005). Widespread interest in this area was sparked by Seligman and Csikszentmihalyi (2000), who acknowledged that positive aspects important to human functioning were understudied in psychological research. This inspired research on individual strengths, among other applications. Strengths can be defined as “the characteristics of a person that allow them to perform well or at their personal best” (Wood, Linley, Maltby, Kashdan, & Hurling, 2011, p. 15). However, having strengths is insufficient to fully reap their benefits, because their gains arise when they are utilized. Strengths can fruitfully be applied in a work setting. Here, strengths use is important because it provides workers with a sense of identity (Roberts, Dutton, Spreitzer, Heaphy, & Quinn, 2005). Work-related identity entails the meaning that a person attributes to their self-concept as an employee (Dutton, Roberts, & Bednar, 2010). Moreover, being aware of *who* we are as employees gives us an impression of *what* we are capable of doing. Hence, strengths use is also linked to self-efficacy (van Woerkom, Oerlemans, & Bakker, 2016), which encompasses the belief that an individual can act successfully to achieve a result (Bandura, 1977).

Positive organizational psychologists have shown great interest in strengths use because it can be linked to performance (Miglianico, Dubreuil, Miquelon, Bakker, & Martin-Krumm, 2020). Prior research has further demonstrated the importance of strengths use by linking it with various other work outcomes such as well-being, work engagement, and job satisfaction (Ghielen, van Woerkom, & Meyers, 2018; Miglianico et al., 2020). In this study, self-efficacy will be the main outcome. This is because it is conceivable that applying what you are good at to perform well at work feeds into a belief that this positive behaviour, which

results in a desired outcome, can be repeated. The positive influence of strengths use has inspired organizations to encourage their employees to use their strengths. Perceived organizational support for strengths use (POSSU) entails the degree to which workers experience assistance from their organizations in utilizing their strengths (Keenan & Mostert, 2013). Unlike strengths use, which entails an internal, personal resource, POSSU reflects an external, job resource (van Woerkom, Bakker, & Nishii, 2016).

In this study, using a secondary dataset of employees living in the Netherlands and Greece, we aim to contribute to the positive psychology literature involving POSSU in two ways. First, we propose a mechanism encompassing the influence of POSSU, which has not been investigated before. In particular, we will investigate whether work-related identity mediates the relationship between POSSU and self-efficacy. Our reasoning behind proposing work-related identity as a mediator is that employees, who receive support in using their strengths, may realise what they are capable of doing based on knowing who they are. A practical implication of this expected outcome would be to increase POSSU among employees to alleviate problems related to work-related identity and self-efficacy. Second, we test the measurement invariance of the proposed model and equality of the inter-variable relationships in the Dutch and Greek contexts to check the generalizability of our results. There are reasons to assume that the inter-variable relationships differ across these countries based on cultural values. In essence, this study is important because it informs positive psychological theory and practice, ultimately emphasizing the role that POSSU plays for employee well-being through disentangling its positive impact. Therefore, we ask:

**Research Question 1.** To what extent is there a relationship between POSSU and self-efficacy, and is this mediated by work-related identity?

**Research Question 2.** Do the relationships between POSSU, self-efficacy, and work-related identity vary across countries, and if so, how?

### **Research on Perceived Organizational Support for Strengths Use**

POSSU can be described as the extent to which employees perceive being supported by their organizations in applying their strengths (Keenan & Mostert, 2013), which enable them to perform optimally at work. Prior research on POSSU has primarily focused on its role as a predictor of work outcomes, such as thriving, work engagement, job performance, job satisfaction, turnover intention, and burnout (Botha & Mostert, 2014; Ding, Yu, & Li, 2020b; Els, Mostert, & van Woerkom, 2018; Keenan & Mostert, 2013; Mahomed & Rothmann, 2019; Meyers et al., 2019; Meyers, Kooij, Kroon, de Reuver, & van Woerkom, 2020; Stander, Mostert, & de Beer, 2014; van Woerkom, Mostert et al., 2016). Similar to strengths use, the importance of POSSU comprises its relationship with outcomes relevant to employee well-being. POSSU has been found to be positively associated with life satisfaction and work engagement, and negatively associated with burnout (Meyers et al., 2019).

Although it has not been researched yet, it has been argued that POSSU might have a positive influence on work-related identity and self-efficacy (Meyers et al., 2020). This makes sense, as strengths are important to our self-concept and confidence regarding performing well at work. Work-related identity incorporates personal, relational, social (tridimensional model of identity; Adams & van de Vijver, 2015), and reconsideration of identity (Adams et al., 2016) dimensions. The personal dimension entails convictions and ambitions, whereas the relational and social dimensions incorporate roles and relations to others, and group membership, respectively (Adams & van de Vijver, 2015). The reconsideration dimension takes into account that commitment to one's work can change over time (Adams et al., 2016). In essence, work-related identity encompasses how we view ourselves in relation to aspects of our work. In addition to being associated with greater well-being, POSSU, work-related identity, and self-efficacy are also protective factors, in that they are associated with reduced burnout (Haslam, Jetten, Postmes, & Haslam, 2009; Meyers et

al., 2019; Perrewé et al., 2002; Siu, Lu, & Spector, 2007; Wegge, Van Dick, Fisher, Wecking, & Moltzen, 2006).

POSSU has also assumed the roles of mediator and moderator. In one study, POSSU partially mediated the positive relationship between core self-evaluation and job performance, which included task performance and innovative behaviour (Ding, Yu, & Li, 2020a). In another study, POSSU ameliorated the influence of job demands, involving workload and emotional demands, on absenteeism (van Woerkom, Bakker, et al., 2016). Similarly, POSSU has been shown to buffer the relationship between technological insecurity and health (Goetz & Boehm, 2020).

However, research on the psychological mechanism through which POSSU influences employees is limited. We know that support for strengths use *is* beneficial to employees, but we do not know *how* it affects them, which constitutes the black box between the POSSU-outcome relationship. An exception is a study that found that a strengths-based psychological climate increased in-role and extra-role performance via positive affect (van Woerkom & Meyers, 2015). However, strengths-based psychological climate differs from POSSU, which only reflects support for strengths use, by including strengths appreciation, identification, and development (van Woerkom & Meyers, 2015). Another study indicated an indirect relationship between strengths use support and work engagement via strengths use and self-efficacy (van Woerkom, Oerlemans, et al., 2016). This shows that POSSU also influences outcomes through mediators. In sum, research examining the influence of POSSU has centered around its association to work outcomes, while research on the mechanism through which POSSU has an impact on employees is limited. Moreover, although POSSU has been implicated to influence work-related identity and self-efficacy (Meyers et al., 2020), the relationships between these variables have not been investigated further.

### **Support for Strengths Use, Work Identity, and Self-Efficacy**

Different theories offer explanations for associations between the variables relevant to this study. The Job Demands-Resources (JD-R) model (Bakker & Demerouti, 2007) and positive identity theory (Dutton et al., 2010) suggest links between POSSU, self-efficacy, and work-related identity. First, the JD-R model explains how job demands (e.g., workload) and job resources (e.g., POSSU) differentially relate to organizational outcomes (e.g., well-being) via strain and motivational processes (Bakker & Demerouti, 2007). Job resources can be defined as job features that assist with attaining work goals, alleviate job demands and linked costs, and spark personal progress (Bakker & Demerouti, 2007). POSSU fits the description of a job resource because it provides employees with support and affirmative feedback regarding their strengths use, triggering an intrinsic motivational process (Bakker & Demerouti, 2007). Moreover, in line with the definition of job resources, POSSU has been linked to performance, well-being, and thriving (Ding et al., 2020a; Mahomed & Rothmann, 2019; Meyers et al., 2019). Job resources can also boost personal resources (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007), such as work-related identity and self-efficacy. In particular, POSSU may enhance these resources by reminding or making employees aware of their strengths and what they can do with them. As such, POSSU likely provides the employee with meaning and confidence, increasing their work-related identity and self-efficacy.

Second, Dutton et al. (2010) describe the evaluative perspective, according to which a positive work-related identity can be formed. This perspective states that a favourable evaluation of the work-related identity makes the identity positive (Dutton et al., 2010). Work-related identity incorporates personal, relational, social, and reconsideration of identity dimensions (Adams et al., 2016; Adams & van de Vijver, 2015). By providing support for strengths use, organizations help employees view their work, relationships with colleagues

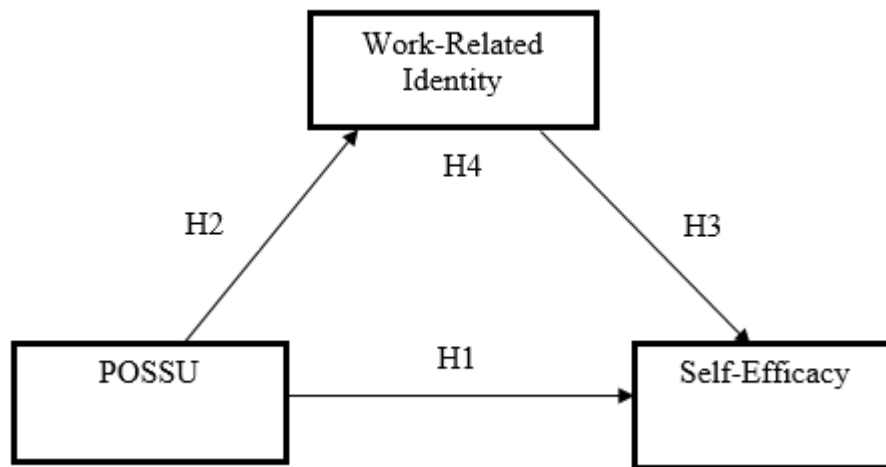
and supervisors, role as a professional, sense of belonging in the workplace, and job commitment as important to their self-concept. Thus, it is conceivable that affirmative feedback in the form of POSSU (e.g., “My organization encourages me to use my strengths”) could induce a favourable evaluation of the identity, resulting in a positive work-related identity (e.g., “My work is meaningful to me”).

Social identity theory (SIT; Tajfel & Turner, 1986) combined with self-efficacy theory (Bandura, 1977) may offer an explanation for a relationship between work-related identity and self-efficacy. According to SIT, individuals identify with social groups (e.g., workers), which they contrast with an out-group (e.g., job seekers; Tajfel & Turner, 1986). If the in-group is regarded more favourably, this results in a positive social identity, enhancing self-esteem (Tajfel & Turner, 1986). Moreover, according to self-efficacy theory (Bandura, 1977), self-efficacy can be enhanced through vicarious experience, which entails watching another person perform a behaviour and imagining oneself doing it. Thus, by observing colleagues perform well at work, employees identify with them and form an in-group. The work-related identity shared by this group makes its members more similar, increasing their self-efficacy (e.g., “If they can do it, I can do it”). Therefore, by forming an in-group through vicarious experience, work-related identity may increase self-efficacy among employees.

Figure 1 illustrates the conceptual model. Drawing on the JD-R model (Bakker & Demerouti, 2007) and positive identity theory (Dutton et al., 2010), we expect POSSU to have direct positive associations with self-efficacy (Hypothesis 1) and work-related identity (Hypothesis 2), respectively. Moreover, by merging arguments by SIT (Tajfel & Turner, 1986) and self-efficacy theory (Bandura, 1977), we expect work-related identity to have a positive relationship with self-efficacy (Hypothesis 3). Finally, since we expect POSSU to affect work-related identity, and this to influence self-efficacy, the hypothesized mechanism



is that POSSU has an indirect positive relationship with self-efficacy through work-related identity (Hypothesis 4).



*Figure 1.* Conceptual model. POSSU = perceived organizational support for strengths use; H1-H4 = hypotheses 1-4.

### **Support for Strengths Use, Work Identity, and Self-Efficacy Across Countries**

Research involving POSSU has largely been conducted within specific countries, including China, South Africa, the Netherlands, Belgium, and Germany (Botha & Mostert, 2014; Ding et al., 2020b, 2020a; Els et al., 2018; Goetz & Boehm, 2020; Keenan & Mostert, 2013; Mahomed & Rothmann, 2019; Meyers et al., 2020; Stander et al., 2014; van Woerkom, Bakker, et al., 2016; van Woerkom, Mostert, et al., 2016; van Woerkom, Oerlemans, et al., 2016; van Woerkom & Meyers, 2015). This excludes that findings may not generalize to other countries due to cultural differences. The study by Meyers et al. (2019) is an exception, which included a large sample ( $n = 1894$ ) of workers from several countries.

In today's global workforce, there is a need for generalizability and invariant measurement of latent constructs over different languages, cultures, and countries. In this study, we specifically chose to compare the Netherlands and Greece because of their separate official languages and cultures. The Greek context is also novel in this line of research. We did this because if the measures would turn out to be invariant and the inter-variable

relationships (POSSU, work-related identity, and self-efficacy) would indicate being equal across the countries, the distinctiveness of the countries would strengthen the generalizability of our results. However, due to differences in cultural values between the Netherlands and Greece, the inter-variable relationships may be not be equal across the countries.

Hofstede (1984) referred to cultural values as mutual mental characteristics of members of a group, which differentiates them from members of a separate group. By comparing the cultural values of employees of various countries, Hofstede (1984) categorized countries along four cultural dimensions, including *individualism/collectivism*, *power distance*, *uncertainty avoidance*, and *masculinity/femininity*. There are reasons to assume that differences in these cultural dimensions may influence the relationships between POSSU, work-related identity, and self-efficacy. Whereas the needs of the individual are emphasized in an individualistic culture, such as the Netherlands, the needs of the group are stressed in a collectivistic culture, such as Greece (Hofstede, 1984). According to Hofstede (1984), this dimension is linked to employees' self-concept, such that their identity is either tied to a group or not. Because support for strengths use pertains to individual employees, it is conceivable that Dutch workers are more receptive to POSSU and its potential effect on work-related identity than Greek workers.

Power distance has to do with the degree to which people agree to an unequal distribution of power between people of a society, where this is disagreed upon in small power distance cultures and agreed upon in large power distance cultures (Hofstede, 1984). Power distance is relatively small in the Netherlands and relatively large in Greece (Hofstede, 1984). Support for strengths use signals the value of individual employees' work to the organization, making them feel less like numbers and more unique. Therefore, POSSU may have a more pronounced effect on work-related identity among Dutch workers, for whom social equality is more emphasized, than Greek workers.

Uncertainty avoidance pertains to the extent to which people in societies handle uncertainty, such as contrasting ideas and change, where strong uncertainty cultures prefer certainty and consistency, and weak uncertainty cultures accept uncertainty and divergence (Hofstede, 1984). Uncertainty avoidance is extremely strong in Greece, whereas it is balanced in the Netherlands (Hofstede, 1984). Given that support for strengths use could require adjusting certain aspects of a job to fit a person's strengths, coupled with the belief that a person can do their job successfully despite change, the impact that POSSU may have on self-efficacy is likely stronger among Dutch workers than Greek workers.

Finally, masculine cultures promote determination, performance, and prosperity, whereas feminine cultures cherish compassion, humility, and well-being (Hofstede, 1984). Hofstede (1984) asserts that this dimension is also tied to employees' self-concept, such that their identity may incorporate aspects of masculine and/or feminine cultures. Greece has somewhat more masculine features than feminine, whereas the Netherlands is extremely 'feminine' (Hofstede, 1984). However, in line with Meyers et al. (2019) reasoning, POSSU may be relevant to both masculine and feminine cultures, by supporting employees in using their strengths to achieve success. Therefore, POSSU may have similar effects on work-related identity across Dutch and Greek workers. However, while we comment on how the inter-variable relationships may differ across the Netherlands and Greece, we do not generate specific hypotheses for the countries due their complex differences in cultural dimensions.

### **The Present Study**

In this study, we seek to investigate how POSSU influences employees and whether this influence is similar in another country, using cross-sectional, secondary data of workers living in the Netherlands and Greece. The statistical method that will be used to answer the first research question and four hypotheses is multigroup path analysis. Multigroup path analysis is appropriate because it allows for testing mediational models across groups

(Gunzler, Chen, Wu, & Zhang, 2013). The statistical method that will be used to answer the second research question is also multigroup path analysis, after conducting multigroup confirmatory factor analysis (CFA) as a preliminary step. Multigroup path analysis enables stepwise comparison of models with constrained and unconstrained path coefficients across groups. As such, it allows for testing the equality of inter-variable relationships. Multigroup CFA is suitable for assessing measurement invariance stepwise across groups (Hirschfeld & von Brachel, 2014).

This study contributes to the positive psychology literature with a novel work-related identity mechanism, and generalizability and invariant measurement of latent constructs over different languages, cultures, and countries. In practice, the results of this study can be applied to strengths interventions to yield optimal results, ultimately improving employee well-being. For example, the implications might encompass increasing POSSU among employees in order to ameliorate work-related identity and self-efficacy problems. In essence, this study is important because it contributes towards highlighting the role that POSSU plays for employee well-being, through informing both theory and practice. It is especially timely in this pandemic era, during which remaining healthy is crucial.

## **Methods**

### **Data Collection and Design**

This study utilizes a cross-sectional design based on secondary data of Dutch and Greek employees. The data was gathered in 2017 through convenience and snowball sampling. Participants were contacted in the respective countries and asked to complete and further distribute a questionnaire including work-related measures. The required sample size, as calculated by the a-priori sample size for structural equation modeling (SEM) online calculator (Soper, 2021), is 700 participants. This is based on a medium effect size = 0.3,  $\alpha = .05$ , 3 latent and 24 observed variables, and 80% power.

**Exclusion criteria.**

Participants were required to meet three criteria in order to be included for data analyses. First, participants needed to indicate having either Dutch or Greek nationality, because this study makes a comparison between the Netherlands and Greece. Second, participants were required to be employed, since each of our measures apply to workers. Third, participants could not have missing values on the entire POSSU, work-related identity, and self-efficacy scales, as this would impede reaching the goal of this study. The pairwise deletion method was employed to handle any remaining missing values. Participants who did not meet these criteria were excluded from the study.

Because we could not control the number of participants who were invited to complete the questionnaire based on our sampling methods, we were unable to calculate a response rate. The initial sample included 978 participants. Out of 637 initial participants from the Netherlands, 88 did not fill in any items and were therefore excluded. Out of the remaining 549 participants, 75 did not indicate their nationality and 15 indicated having an other nationality. Regarding employment status, 28 participants reported that they do not hold a job. Moreover, 154 participants did not fill in any items measuring one or all of our study variables. Based on these exclusion criteria, 166 participants were excluded from the study, yielding a total of 383 Dutch participants.

Out of 341 initial participants from Greece, 63 did not respond to any items. These participants were excluded, resulting in 278 participants. Furthermore, 20 participants did not indicate whether they hold a job or not, and 38 participants did not report their nationality and 14 reported having an other nationality. Finally, 77 participants did not respond to any items measuring one or all of our study variables. As a result of applying these exclusion criteria, 88 participants were excluded from the study, leading to a total of 190 Greek participants.

## Participants

After removing a total of 405 participants based on the exclusion criteria, the final sample ( $N = 573$ ) included 383 participants from the Netherlands and 190 participants from Greece. Participants were on average 33.17 years old, and 62.00% ( $N = 355$ ) were female. They reported being highly educated, as 60.00% ( $N = 344$ ) had attained a degree from a university of applied sciences or academic university in the Netherlands, and technological education institute or university in Greece. Table 1 indicates the demographics per country.

Table 1

*Demographics per country.*

	The Netherlands	Greece	Total
Sample size ( $N$ )	383	190	573
Age (in years)	31.18	37.20	33.17
Gender (% female)	62.90	60.00	62.00
Education (% high) <sup>a</sup>	53.50	73.20	60.00
Education (% medium) <sup>b</sup>	34.20	26.30	31.60

*Note:* <sup>a</sup>Percentage of participants who obtained a degree by completing higher vocational education (HBO), scientific education (WO), or technological education institute (TEI).

<sup>b</sup>Percentage of participants who obtained a diploma by completing preparatory scientific education (VWO), middle-level applied education (MBO), or lower/upper/post-secondary education (gymnasium/lyceum/IEK/OAED).

## Measures

The measures included in the questionnaire that are relevant to this study comprise POSSU, work-related identity, self-efficacy, and demographics. They were previously translated from English into Dutch and Greek. In this study, the minimum required scale reliability is 0.7, which we assessed using Cronbach's Alpha (Cronbach, 1951).

**Perceived organizational support for strengths use.**

Participants' POSSU was measured by the subscale of the Strengths Use and Deficit Correction (SUDCO) questionnaire (van Woerkom, Mostert, et al., 2016). The POSSU subscale includes 8 items, such as "This organization focuses on what I am good at" (van Woerkom, Mostert, et al., 2016). Participants were asked to rate the items on a 7-point Likert scale (1 = *almost never*, 7 = *almost always*). The POSSU subscale was considered being reliable ( $\alpha = .97$ ).

**Work-related identity.**

Participants' work-related identity was measured by the 12-item Tilburg Work Identity Scale of Commitment and Reconsideration of Commitment (TWIS-CRC; Adams et al., 2016). The TWIS-CRC incorporates personal, relational, and social identity dimensions, as well as reconsideration of work identity (Adams et al., 2016). Items 10, 11, and 12 pertaining to reconsideration of work identity are reverse coded. An example item is "My work is important for who I am" (Adams et al., 2016). Participants were asked to rate their agreement with the items on a 5-point Likert scale (1 = *strongly disagree*, 5 = *strongly agree*). Overall, the TWIS-CRC was deemed reliable ( $\alpha = .90$ ).

**Self-efficacy.**

Participants' self-efficacy was measured by the New General Self-Efficacy (NGSE) scale (Chen, Gully, & Eden, 2001). We used 4 out of 8 items of the NGSE, including items 2, 5, 6, and 8, which can be found in the appendix of Chen et al. (2001). An example item is "I will be able to successfully overcome many challenges" (Chen et al., 2001). Participants were asked to rate their agreement with the items on a 5-point Likert scale (1 = *strongly disagree*, 5 = *strongly agree*). The NGSE indicated being reliable ( $\alpha = .87$ ).

**Demographics.**

Participants' demographics were measured by four items. The first item measured participant age (in years). The second item asked participants to indicate their gender (1 = *male*, 2 = *female*). The third item asked participants what their highest educational level is (1 = *low educational level*, 2 = *medium educational level*, 3 = *high educational level*). Finally, the fourth item asked participants what their nationality is (1 = *the Netherlands*, 2 = *Greece*).

**Data Analysis**

The data analysis included three steps, namely, data cleaning, preliminary analyses, and main analyses. First, we started by cleaning the secondary dataset based on the exclusion criteria using SPSS (Version 24.0). Second, the preliminary analyses included assessing descriptive statistics and measurement invariance. The p-value that we used to determine statistical significance for tests included in these and following analyses was .05. As part of the descriptive statistics, we examined scale reliability, means, standard deviations and correlations between our study variables using SPSS (Version 24.0). Next, we conducted multigroup CFA, using different packages in R (Version 4.0.3; R Core Team, 2020), in which we assessed stepwise measurement invariance. More specifically, we used the lavaan (Rosseel, 2012), semTools (Jorgensen, Pornprsertmanit, Schoemann, & Rosseel, 2021), and moments (Komsta & Novomestky, 2015) packages. An advantage of R is that it is freely available, which increases the replicability of our study. We tested for increasing levels of measurement invariance including configural, weak, strong, and strict invariance, by means of Likelihood Ratio tests. If the p-value was non-significant ( $p > .05$ ), measurement invariance could be assumed. If the p-value was significant ( $p < .05$ ), equality constraints could be released to achieve partial measurement invariance (van de Schoot, Lugtig, Hox, 2012). When assessing configural invariance (i.e., model fit), we considered multiple fit indices, including  $X^2$ , root mean square error of approximation (RMSEA), standardized root



mean square residual (SRMR), Tucker-Lewis index (TLI) and comparative fit index (CFI). This enabled us to make a balanced judgment regarding model fit. In the case that our model showed poor fit, we would examine modification indices and consider including cross-loadings and/or error covariances stepwise, but only if they made sense based on theory.

Third, the main analyses, encompassing multigroup path analysis, were also conducted in R (Version 4.0.3; R Core Team, 2020) using the same packages as for the multigroup CFA. We answered our second research question first through a Likelihood Ratio test, in which we compared the fit of a constrained model with equal path coefficients across countries against that of an unconstrained model with varying path coefficients across countries. The null hypothesis was that the models show equal fit ( $p > .05$ ), in which case the more parsimonious, constrained model would be preferable. The alternative hypothesis was that the constrained model shows worse fit than the unconstrained model ( $p < .05$ ). If the null hypothesis was accepted and we opted for the constrained model, the relationships between our study variables were equal across countries, and we would not need to use a multigroup approach to path analysis to answer our first research question. However, if the null hypothesis was rejected and we opted for the unconstrained model, the inter-variable relationships varied across countries, and applying a multigroup approach would be necessary. Finally, we answered our first research question using two-tailed tests to determine whether our hypotheses showed statistically significant effects.

### **Ethical Considerations and Preregistration**

We gained ethical approval from the Ethics Review Board (ERB) at Tilburg University, by completing the submission form for a research project at the Tilburg School of Social and Behavioral Sciences. We considered general information, data management, and the General Data Protection Regulation (GDPR)/data processing register. The secondary data of this study was collected in an ethical way. Participants gave their informed consent and

were debriefed about the purpose of the study after their participation. The time it took to complete the questionnaire was the only negative consequence. Moreover, prior to conducting the statistical analyses, this study was preregistered on the Open Science Framework using the secondary data analysis template. The template consists of five parts, including study information, data description, variables, knowledge of data, and analyses. The preregistration form can be accessed through the following link: <https://osf.io/n9r6b/>.

## Results

### Preliminary Analyses

After confirming the reliability of the scales in terms of their internal consistency, we examined the means, standard deviations, and correlations between the study variables. The descriptive statistics can be found in Table 2 (see the Appendix for descriptive statistics per country). As can be seen in this table, all correlations between the core variables are positive and significant. The more POSSU participants reported, the greater work-related identity ( $r(573) = .65, p < .01$ ) and self-efficacy ( $r(573) = .16, p < .01$ ) they experienced. Moreover, the greater work-related identity participants reported, the higher self-efficacy they indicated ( $r(573) = .31, p < .01$ ).

Table 2

*Descriptive statistics including means, standard deviations, and correlations.*

Measure	<i>M (SD)</i>	1.	2.	3.	4.	5.	6.	7.
1. POSSU	4.69 (1.41)	(.97)						
2. WID	3.68 (.66)	.65**	(.90)					
3. SE	4.02 (.61)	.16**	.31**	(.87)				
4. Age <sup>a</sup>	33.17 (11.87)	.14**	.17**	.04	-			
5. Gender <sup>b</sup>	1.62 (.49)	.03	-.02	-.05	-.01	-		
6. Education <sup>c</sup>	2.54 (.63)	.08	.06	.14**	.09*	-.01	-	

Measure	<i>M (SD)</i>	1.	2.	3.	4.	5.	6.	7.
7. Nationality <sup>d</sup>	1.33 (.47)	-.08	-.08	.10*	.24**	-.03	.23**	-

*Note:* Means and standard deviations are reported for the study variables. Cronbach's alphas for the multi-item measures are reported on the diagonal. POSSU = perceived organizational support for strengths use; WRI = work-related identity; SE = self-efficacy.

<sup>a</sup>Age in years

<sup>b</sup>Gender (1 = *Male*; 2 = *Female*)

<sup>c</sup>Education (1 = *Low*, 2 = *Medium*, 3 = *High*)

<sup>d</sup>Nationality (1 = *The Netherlands*, 2 = *Greece*)

\*  $p \leq .05$ ; \*\*  $p \leq .01$

Next, we examined if The Netherlands and Greece varied on demographic variables, including age, gender, and education. We ran  $X^2$  tests for gender [Pearson's  $X^2(1, N = 573) = .46, p = .497$ ] and education [Pearson's  $X^2(2, N = 566) = 30.87, p < .001$ ], and a one-way analysis of variance (ANOVA) for age. Because the homogeneity of variances assumption was not met [Levene = 17.41,  $p < .001$ ], we conducted Welch's ANOVA [Welch's  $F(1, 466.67) = 40.66, p < .001$ ]. These tests demonstrated that there were significant differences between the countries' education and age, but not gender. More specifically, on average, Greek workers were more higher educated ( $M = 2.74, SD = .44$ ) and older ( $M = 37.20, SD = 9.58$ ) than Dutch workers ( $M = 2.44, SD = .68; M = 31.18, SD = 12.38$ ). In order to check whether education and age affected participants' POSSU, work-related identity, and self-efficacy, we ran one-way multivariate analyses of variance (MANOVAs). The MANOVAs demonstrated that there were significant differences between the study variables, and both age [ $F(141, 1553.37) = 1.25, p = .031, \text{Wilks' } \lambda = .73, \eta p^2 = .10$ ] and education [ $F(6, 1122) = 2.58, p = .017, \text{Wilks' } \lambda = .97, \eta p^2 = .01$ ]. Therefore, we conducted the main analyses both

while controlling and not controlling for participants' age and education. Because the control variables did not affect our overall results, the reported results exclude the control variables.

### **Model Fit**

We ran the multigroup CFA and main analyses in R (Version 4.0.3; R Core Team, 2020) using the lavaan (Rosseel, 2012), semTools (Jorgensen et al., 2021) and moments (Komsta & Novomestky, 2015) packages. We started by specifying the full measurement model with correlated latent POSSU, work-related identity, and self-efficacy factors. We opted for the Maximum Likelihood (ML) estimator, because its distributional assumptions were met and an inspection of the items' skewness and kurtosis showed no indication of severe non-normality. The model was identified by standardizing its latent variables. The null hypothesis that the initial model reproduced the data was rejected,  $X^2(249) = 1670.58, p < .001$ . Given that  $X^2$  is influenced by sample size (Brannick, 1995), we also inspected alternative fit indices. These indicated that the fit of the initial model could be improved, RMSEA = .10, SRMR = .07, CFI = .87, TLI = .85. Modification indices suggested that including error covariances between each of the items measuring reconsideration of work identity (items 10, 11, and 12) and two of the items measuring relational identity (items 6 and 7) of the TWIC-CRC (Adams et al., 2016) would have the biggest impact on model fit. These changes would also be meaningful based on the wording of the items. We re-estimated the model by adding the 4 error covariances stepwise and checking their significance using Likelihood Ratio tests. Each model improvement was significant. The null hypothesis that the model with error covariances reproduced the data was rejected,  $X^2(245) = 1073.17, p < .001$ . However, overall, the model with error covariances showed acceptable fit (RMSEA = .08, SRMR = .06, CFI = .92, TLI = .91). All items in this model had significant factor loadings on their respective latent variables. The standardized factor loadings ranged between .85-.91 for POSSU, .43-.82 for work-related identity, and .75-.85 for self-efficacy.

### **Multigroup Confirmatory Factor Analysis**

Next, we ran a multigroup confirmatory factor analysis, in which we assessed configural, weak, strong, and strict measurement invariance stepwise through Likelihood Ratio tests (see Table 3). The model was identified by including a mean structure and fixing the mean of latent factors to 0. We started by assessing configural invariance to check whether the model fits across the Netherlands and Greece. We achieved full configural invariance,  $X^2(490) = 1469.88, p < .001, RMSEA = .08, SRMR = .06, CFI = .91, TLI = .90$ . Next, we assessed weak invariance to see if the factor loadings in both countries are the same. We gained partial weak invariance after releasing two items' factor loadings on the work-related identity factor. Consequently, we assessed strong invariance to check if item intercepts are equal across countries. We obtained partial strong invariance after freeing four work-related identity items' intercepts and two self-efficacy items' intercepts. Finally, we assessed strict invariance to examine if item residual variances are the same in both countries. We achieved partial strict invariance after releasing residual variances of six work-related identity items, two self-efficacy items, and seven POSSU items.

In sum, based on the preliminary results of the multigroup CFA, we conclude that the measures are (partially) invariant across countries. While the model fit across the countries, the factor loadings, item intercepts, and residual variances of the POSSU, work-related identity, and self-efficacy measures partially applied to both countries. This means that the factor structure is the same in both countries, and that correlations, means, and explained variance of items can be analysed across countries (van de Schoot et al., 2012). In other words, the constructs and items have the same meaning for Dutch and Greek workers. Therefore, these preliminary results enabled us to proceed with our main analyses, involving examining whether the path coefficients between our study variables are the same across countries and consequently inspecting their effects.

Table 3

*Measurement invariance including configural, weak, strong, and strict invariance.*

Invariance test	$\chi^2$ (df)	TLI	CFI	RMSEA	SRMR	$\Delta\chi^2$ (df)	<i>p</i> -value
Configural	1469.88(490)	.90	.91	.08	.06	-	-
Weak	1488.64(509)	.91	.91	.08	.07	18.76(19)	.47
Strong	1509.51(524)	.91	.91	.08	.07	20.87(15)	.14
Strict	1524.40(533)	.91	.91	.08	.07	14.89(9)	.09

*Note:* TLI = Tucker-Lewis index; CFI = comparative fit index; RMSEA = root mean square error of approximation; SRMR = standardized root mean square residual;  $\Delta\chi^2$ (df) = chi-square difference (degrees of freedom difference), and the corresponding *p*-value.

### **Multigroup Path Analysis**

In order to answer our second research question, we conducted a multigroup path analysis, in which we checked whether the path coefficients are equal across countries through a Likelihood Ratio test. In essence, we tested an unconstrained model with varying paths against a constrained model with equal paths. The null hypothesis entailed that the models fit equally well ( $p > .05$ ), whereas the alternative hypothesis entailed that the constrained model fits worse than the unconstrained model ( $p < .05$ ). If the models fit equally well, the constrained model would be the better choice. We included two paths in the models, one between POSSU and work-related identity, and one between work-related identity and self-efficacy. The third path between POSSU and self-efficacy was fixed to a value of 0, because it was non-significant. This also identified our models.

Both models showed good fit to the data. The null hypothesis that the model reproduced the data was not rejected for the unconstrained ( $X^2(2) = 4.34, p = .114$ ) and constrained ( $X^2(4) = 6.25, p = .181$ ) models. Alternative fit indices also indicated good fit for both the unconstrained (RMSEA = .06, SRMR = .01, CFI = .99, TLI = .98) and constrained

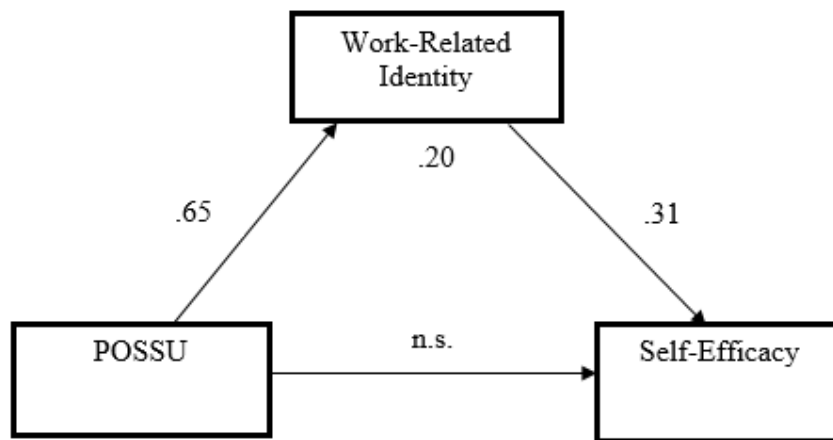
(RMSEA = .04, SRMR = .03, CFI = .99, TLI = .99) models. The Likelihood Ratio test demonstrated that the models fit equally well ( $\Delta X^2 = 1.91$ ,  $\Delta df = 2$ ,  $p = .38$ ). Therefore, the constrained model was the better choice. This means that we can assume that the paths between POSSU and work-related identity, and work-related identity and self-efficacy are equal across the countries. In sum, the answer to our second research question is that the relationships between POSSU, work-related identity, and self-efficacy do not vary across countries.

### Path Analysis

Because we opted for the constrained model with equal path coefficients, it was not necessary to use the multigroup approach to path analysis to examine the relationships between our study variables. Therefore, in order to answer the first research question, we fit an initial path model across countries with the hypothesized paths between POSSU, work-related identity, and self-efficacy and using the ML estimator. Because the path between POSSU and self-efficacy was non-significant ( $p = .11$ ), we fixed this specific path to a value of 0. This identified our model. Therefore, our first hypothesis was not supported. The adjusted model showed good fit to the data. The null hypothesis that the model reproduced the data was not rejected,  $X^2(1) = 2.49$ ,  $p = .115$ . Alternative fit indices also indicated that the model displayed good fit, RMSEA = .05, SRMR = .02, CFI = 1.00, TLI = .99.

The remaining standardized regression coefficients across the countries were significant (see Figure 2). The positive direct association between POSSU and work-related identity ( $\beta = .65$ ) supported our second hypothesis. Moreover, the positive direct association between work-related identity and self-efficacy ( $\beta = .31$ ) supported our third hypothesis. Finally, the positive indirect association between POSSU and self-efficacy, via work-related identity ( $\beta = .20$ ), supported our fourth hypothesis. In sum, the model indicated full mediation, because all our hypotheses except the first were supported. Therefore, the answer

to our first research question is that the relationship between POSSU and self-efficacy is mediated by work-related identity.



*Figure 2.* Path model with standardized regression coefficients across the Netherlands and Greece. Each path is significant at the .001 level, except that between POSSU and self-efficacy (n.s. = non-significant). POSSU = perceived organizational support for strengths use.

### Discussion

The aim of this study was to contribute to positive psychological theory and practice by increasing our knowledge of the influence of POSSU on employees across different countries. We asked to what extent there is a relationship between POSSU and self-efficacy, and whether this is mediated by work-related identity. In addition, we asked whether and how these relationships vary between countries. The results of the path analysis showed that each of our hypotheses were supported except the first. Thus, the answer to our first research question is that the relationship between POSSU and self-efficacy is fully mediated by work-related identity. The results of the multigroup CFA showed that our model obtained full configural invariance, and partial weak, strong, and strict invariance. Based on the multigroup path analysis, we retained the more parsimonious, constrained model. Therefore, the answer to our second research question is that the relationships between POSSU, work-related identity, and self-efficacy are the same across the Netherlands and Greece.



### **Critical Reflection**

Contrary to our expectation, the association between POSSU and self-efficacy was not significant. This can be explained by our finding that, instead, POSSU has an indirect, positive relationship with self-efficacy via work-related identity. It makes sense that self-efficacy is the outcome, because employees need to be able to define who they are to know what they are capable of doing. Psychological capital (PsyCap; Luthans, Youssef, & Avolio, 2007) provides an alternative explanation. PsyCap can be defined as "...an individual's positive psychological state of development" (Luthans, Youssef, et al., 2007, p. 3), and it comprises hope, self-efficacy, resilience, and optimism. In line with the JD-R model (Bakker & Demerouti, 2007) and its extension of personal resources (Xanthopoulou et al., 2007), job resources, such as POSSU, may enhance personal resources, such as PsyCap. More specifically, it may be that POSSU has a positive relationship with the composite construct PsyCap rather than solely the self-efficacy component. Similar to this reasoning, PsyCap has been found to be a better predictor of job performance and satisfaction compared with its individual components (Luthans, Avolio, Avey, & Norman, 2007).

In line with our expectation, we found a positive association between POSSU and work-related identity. This corroborates the JD-R model (Bakker & Demerouti, 2007) and its extension that job resources enhance personal resources (Xanthopoulou et al., 2007). As a job resource, POSSU triggers personal growth by making employees aware of their strengths, and reminding and encouraging their use. In doing so, POSSU provides workers with meaning that they attach to their self-concept (Dutton et al., 2010). Moreover, this finding also corroborates the evaluative perspective of positive identity theory (Dutton et al., 2010). POSSU influences employees' work-related identity by affecting personal, relational, social, and reconsideration of identity dimensions (Adams et al., 2016; Adams & van de Vijver, 2015). Thus, POSSU alters employees' beliefs, improves their work relationships,

strengthens their roles as professionals, gives them a sense of belonging at work, and makes them more committed to their jobs. This helps workers make a favourable evaluation of their identity, creating a positive work-related identity (Dutton et al., 2010).

In line with our expectation, we found a positive relationship between work-related identity and self-efficacy. This corroborates social identity theory (Tajfel & Turner, 1986) and self-efficacy theory (Bandura, 1977), which we merged to form our expectation. Through vicarious experience, such as seeing colleagues perform their work tasks confidently, employees identify with an in-group, which they view more positively over an out-group. This shared work-related identity, in turn, increases the group members' self-efficacy.

Finally, we found that the relationships between POSSU, work-related identity, and self-efficacy do not vary across countries. Although we made no specific hypotheses for the Netherlands and Greece due to their complex differences in cultural values, we conjectured that Hofstede's (1984) cultural dimensions may influence our study variables and their relationships in the respective countries. With regards to these cultural dimensions, the Netherlands scores higher on individualism and femininity, and lower on power distance and uncertainty avoidance, than Greece (Hofstede, 1984). There may be multiple reasons as to why the inter-variable relationships were found to be equal. First, it may be that the countries' differences in cultural values are not big enough. Second, the masculinity/femininity dimension is ambiguous regarding its influence on POSSU, as it has been reasoned that both masculine and feminine cultures may promote support for strengths use to help employees succeed in their work (Meyers et al., 2019). Third, it could be that other aspects, such as shared social norms, have a greater impact than cultural values do on our study variables and their relationships across the countries. Indeed, the countries are relatively similar, given that they are both European and part of the Western world.

### **Strengths and Limitations**

This study includes several strengths. First, this study contributes to the positive psychology literature by showing that, across countries, POSSU positively influences employees' self-efficacy through positively affecting their work-related identity. This work-related identity mechanism may hold the key to unlocking the black box entailing the POSSU-outcome relationship, revealing a psychological pathway through which POSSU impacts employees. Second, this study is especially timely during this pandemic, which has negatively affected the well-being of employees. For example, employees have reported experiencing increased job insecurity, anxiety and depressive symptoms, financial concern, and reduced value of working (Ipsen, Kirchner, & Hansen, 2020; Wilson et al., 2020). By describing the positive interrelationships between our core variables, we also demonstrated the range of the influence POSSU has on employees. In doing so, we emphasized the role this construct plays for well-being. Third, most of our analyses (except data cleaning and descriptive statistics) were conducted in R (Version 4.0.3; R Core Team, 2020), a software that is freely available to anyone. This is a strength of our study because it increases its replicability. Fourth, this study considered the need for valid measurement, which is becoming increasingly important for today's global workforce. The measures used in this study were found to be (partially) invariant and the inter-variable relationships were equal across countries. Therefore, our measures were generalizable across different countries, cultures, and languages. Finally, while the Dutch context has been previously applied in this line of research (e.g., Meyers et al., 2019), the Greek context is novel. Additionally, our selected countries are sufficiently distinct in terms of having different official languages and cultural values.

However, this study is not without limitations, which we also consider in our future research recommendations. First, our selected countries are quite similar, in that they are both

European countries and part of the Western world. It is conceivable that our results may be less generalizable to countries which are part of the Eastern world. However, the generalizability of our results is enhanced by the distinctiveness of the countries in terms of their separate official languages and cultural values. Second, the statistical power of our tests was limited by the size of the Greek subsample ( $N = 190$ ). Our final sample size ( $N = 573$ ) was therefore smaller than the 700 participants that were required by our power analysis. This could result in both failing to uncover and misidentifying true effects. Third, because this is a cross-sectional study, we cannot make causal inferences about the relationships between our variables. Therefore, our findings reflect an educated guess, which nonetheless is grounded in theory and previous research findings. Finally, because participants only completed self-report measures, our study may have been affected by common method bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). However, we utilized procedural strategies to reduce the impact of common method bias, including variation in scale properties and reverse coding items (Jordan & Troth, 2020). The measures of our study variables had different scale properties, including 5- and 7-point Likert scales with agreement (1 = *strongly disagree*, 5 = *strongly agree*) and frequency (1 = *almost never*, 7 = *almost always*) anchor labels. In addition, 3 items of the work-related identity measure were reverse coded.

### **Practical Implications**

This study also offers practical implications. First, given the positive outcome of this study, organizations should offer strengths support to their employees. In practice, this could be done by adjusting employees' job demands to fit their strengths, improving person-job fit. For example, an employee that demonstrates leadership characteristics could be supported by being given the opportunity to become a team leader. Similarly, organisations engaging in job design may consider enriching jobs by providing employees with positive affirmative feedback regarding their strengths use. For instance, line managers, who are in direct contact

with employees, could provide workers with personalized feedback pertaining to their strengths use. Second, companies looking to improve employee well-being should consider the interrelationships described in this study. For example, our findings suggest that issues with work-related identity and self-efficacy may be ameliorated by increasing POSSU.

Finally, positive psychology interventions applying support for strengths use in a work setting may benefit from incorporating the mechanism described in this study. If the tasks of such an intervention are tailored accordingly, it is to be expected that employees' participating in the POSSU intervention experience greater work-related identity, which, in turn, increases their self-efficacy. A work-related identity focus could be incorporated into a POSSU intervention by having participants write down how being supported to use their strengths at work influences their identity. This could be done with the help of prompts. For example, participants could be asked to explain how POSSU affects their beliefs and aspirations, roles and relations, sense of belonging at work, and commitment to their job, incorporating personal, relational, social, and reconsideration of identity dimensions (Adams et al., 2016; Adams & van de Vijver, 2015). Alternatively, participants could be asked to finish sentences such as "Being supported in using my strengths is important to my work-related identity because...".

### **Future Research**

Our future research recommendations pertain to the study limitations and new avenues of research. First, there may be other POSSU pathways in addition to the one discovered in this study. Hence, the work-related identity mechanism constitutes the initial step to unlocking the black box between the POSSU-outcome relationship. For example, it is conceivable that POSSU may affect employees' PsyCap (Luthans, Youssef, et al., 2007), based on arguments by the JD-R model (Bakker & Demerouti, 2007) and its addition of personal resources (Xanthopoulou et al., 2007). In this study, we demonstrated that POSSU

has an indirect, positive relationship with self-efficacy. However, POSSU may also be linked with the remaining PsyCap components (hope, resilience, and optimism), or with PsyCap as a whole. We hope that this study inspires more research in this area, and that with time and accumulating study findings, positive psychological research is able to closely map the inner workings of POSSU. In addition, future studies may explore how such pathways relate to employee well-being.

Second, future research may examine how POSSU affects employees working for multinational companies spanning across the Western and Eastern world. For instance, it would be interesting to investigate whether such research results generalize across countries with extremely low and high index scores (ranging from 0-100) on the same Hofstede's (1984) cultural dimensions. Such a comparison could be between Austria and Malaysia, which score extremely low and high on power distance, respectively (Hofstede, 1984). Another comparison could be between Australia and Pakistan, which score extremely low and high on individualism/collectivism, respectively (Hofstede, 1984).

Third, we recommend that future studies investigate, in addition to mediating variables, moderating variables and moderated mediation. It could be that individual difference variables such as personality traits or demographic characteristics could moderate the POSSU-outcome relationship. For instance, neuroticism, which includes facets such as vulnerability, anxiety, and depression (John & Srivastava, 1999), may moderate the relationship between POSSU and well-being. More specifically, it may be that this relationship is weaker among individuals who score high on neuroticism compared with individuals who score low on neuroticism (indicating emotional stability).

Finally, in order to enable causal inferences about relationships between POSSU and outcomes, future research should incorporate the effect of time. Indeed, to be able to claim developmental effects, longitudinal research with multiple data collection waves is needed.

To ease the data collection process, studies could utilize experience sampling methods, such as smartphone applications. For example, after completing a general questionnaire, employees could be asked to fill in a short questionnaire via an application after two workdays every week for a period of three months. The 6-week-long diary study by van Woerkom, Oerlemans, et al. (2016) constitutes a step in the right direction. Moreover, other-report measures, such as colleagues' performance ratings, could be incorporated into mobile applications as a strategy to reduce common method bias (Jordan & Troth, 2020).

### **Conclusion**

In conclusion, POSSU is positively associated with self-efficacy via work-related identity among employees from the Netherlands and Greece. Moreover, these work-related measures are partially invariant and the inter-variable relationships are equal across the countries. In essence, it is important to increase POSSU among employees to increase their well-being. Indeed, work-related identity is the initial step to unlocking the black box between the POSSU-outcome relationship, increasing our knowledge of *how* POSSU affects employees. However, there may also be alternative psychological pathways with other mediating and moderating variables through which POSSU influences workers, and it is up to future research to uncover them in various contexts.

## References

- Adams, B. G., Buzea, C., Cazan, A.-M., Sekaja, L., Stefenel, D., Gotea, M., & Meyers, M. C. (2016). Measurement invariance of the Tilburg Work Identity Scale for Commitment and Reconsideration of Commitment (TWIS-CRC) in Romania, England, the Netherlands, and South Africa. *Psihologia Resurselor Umane, 14*(2), 122–135. Retrieved from <https://www.hrp-journal.com/index.php/pru/article/view/75>
- Adams, B. G., & van de Vijver, F. J. R. (2015). The many faces of expatriate identity. *International Journal of Intercultural Relations, 49*, 322-331. <https://doi.org/10.1016/j.ijintrel.2015.05.009>
- Bakker, A. B., & Demerouti, E. (2007). The Job Demands-Resources model: State of the art. *Journal of Managerial Psychology, 22*(3), 309-328. <https://doi.org/10.1108/02683940710733115>
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*(2), 191–215. <https://doi.org/10.1037/0033-295X.84.2.191>
- Botha, C., & Mostert, K. (2014). A structural model of job resources, organisational and individual strengths use and work engagement. *SA Journal of Industrial Psychology, 40*(1), 1-11. <https://doi.org/10.4102/sajip.v40i1.1135>
- Brannick, M. T. (1995). Critical comments on applying covariance structure modeling. *Journal of Organizational Behavior, 16*(3), 201–213. <https://doi.org/10.1002/job.4030160303>
- Chen, G., Gully, S. M., & Eden, D. (2001). Validation of a New General Self-Efficacy Scale. *Organizational Research Methods, 4*(1), 62–83. <https://doi.org/10.1177/109442810141004>



- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, *16*(3), 297–334. <https://doi.org/10.1007/BF02310555>
- Ding, H., Yu, E., & Li, Y. (2020a). Core self-evaluation, perceived organizational support for strengths use and job performance: Testing a mediation model. *Current Psychology*, 1-8. <https://doi.org/10.1007/s12144-020-01029-z>
- Ding, H., Yu, E., & Li, Y. (2020b). Linking perceived organizational support for strengths use to task performance. *Social Behavior and Personality: An International Journal*, *48*(3), 1-11. <https://doi.org/10.2224/SBP.8906>
- Dutton, J. E., Roberts, L. M., & Bednar, J. (2010). Pathways for positive identity construction at work: Four types of positive identity and the building of social resources. *Academy of Management Review*, *35*(2), 265–293. <https://doi.org/10.5465/amr.35.2.zok265>
- Els, C., Mostert, K., & van Woerkom, M. (2018). Investigating the impact of a combined approach of perceived organisational support for strengths use and deficit correction on employee outcomes. *SA Journal of Human Resource Management*, *16*(1), 1-11. <https://doi.org/10.4102/sajhrm.v16i0.882>
- Gable, S. L., & Haidt, J. (2005). What (and why) is positive psychology? *Review of General Psychology*, *9*(2), 103–110. <https://doi.org/10.1037/1089-2680.9.2.103>
- Ghielen, S. T. S., van Woerkom, M., & Meyers, M. C. (2018). Promoting positive outcomes through strengths interventions: A literature review. *The Journal of Positive Psychology*, *13*(6), 573–585. <https://doi.org/10.1080/17439760.2017.1365164>
- Goetz, T. M., & Boehm, S. A. (2020). Am I outdated? The role of strengths use support and friendship opportunities for coping with technological insecurity. *Computers in Human Behavior*, *107*. <https://doi.org/10.1016/j.chb.2020.106265>

- Gunzler, D., Chen, T., Wu, P., & Zhang, H. (2013). Introduction to mediation analysis with structural equation modeling. *Shanghai Archives of Psychiatry*, *25*(6), 390–394.  
<https://doi.org/10.3969/j.issn.1002-0829.2013.06.009>
- Haslam, S. A., Jetten, J., Postmes, T., & Haslam, C. (2009). Social identity, health and well-being: An emerging agenda for applied psychology. *Applied Psychology: An International Review*, *58*(1), 1-23. <https://doi.org/10.1111/j.1464-0597.2008.00379.x>
- Hirschfeld, G., & von Brachel, R. (2014). Improving multiple-group confirmatory factor analysis in R - A tutorial in measurement invariance with continuous and ordinal indicators. *Practical Assessment, Research, and Evaluation*, *19*(7), 1–12.  
<https://doi.org/10.7275/qazy-2946>
- Hofstede, G. (1984). Cultural dimensions in management and planning. *Asia Pacific Journal of Management*, *1*(2), 81–99. <https://doi.org/10.1007/BF01733682>
- Ipsen, C., Kirchner, K., & Hansen, J. P. (2020). *Experiences of working from home in times of covid-19: International survey conducted the first months of the national lockdowns March-May, 2020*. DTU Orbit. <https://doi.org/10.11581/dtu:00000085>
- John, O. P., & Srivastava, S. (1999). The Big-Five trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (Vol. 2, pp. 102-138). New York: Guilford Press.
- Jordan, P. J., & Troth, A. C. (2020). Common method bias in applied settings: The dilemma of researching in organizations. *Australian Journal of Management*, *45*(1), 3–14.  
<https://doi.org/10.1177/0312896219871976>
- Jorgensen, T. D., Pornprasertmanit, S., Schoemann, A. M., & Rosseel, Y. (2021). SemTools: Useful tools for structural equation modeling. R package version 0.5-5. Retrieved from

<https://CRAN.R-project.org/package=semTools>

Keenan, E. M., & Mostert, K. (2013). Perceived organisational support for strengths use: The factorial validity and reliability of a new scale in the banking industry. *SA Journal of Industrial Psychology*, *39*(1), 1-12. <https://doi.org/10.4102/sajip.v39i1.1052>

Komsta, L., & Novomestky, F. (2015). Moments: Moments, cumulants, skewness, kurtosis and related tests. R package version 0.14. Retrieved from <https://CRAN.R-project.org/package=moments>

Luthans, F., Avolio, B. J., Avey, J. B., & Norman, S. M. (2007). Positive psychological capital: Measurement and relationship with performance and satisfaction. *Personnel Psychology*, *60*(3), 541–572. <https://doi.org/10.1111/j.1744-6570.2007.00083.x>

Luthans, F., Youssef, C. M., & Avolio, B. J. (2007). *Psychological capital: Developing the human competitive edge*. <https://doi.org/10.1093/acprof:oso/9780195187526.001.0001>

Mahomed, F. E., & Rothmann, S. (2019). Strengths use, deficit correction, thriving and performance of academics at universities of technology. *SA Journal of Industrial Psychology*, *45*(1), 1-10. <https://doi.org/10.4102/sajip.v45i0.1577>

Meyers, M. C., Adams, B. G., Sekaja, L., Buzea, C., Cazan, A.-M., Gotea, M., Stefenel, D., & van Woerkom, M. (2019). Perceived organizational support for the use of employees' strengths and employee well-being: A cross-country comparison. *Journal of Happiness Studies*, *20*(6), 1825–1841. <https://doi.org/10.1007/s10902-018-0026-8>

Meyers, M. C., Kooij, D., Kroon, B., de Reuver, R., & van Woerkom, M. (2020). Organizational support for strengths use, work engagement, and contextual performance: The moderating role of age. *Applied Research in Quality of Life*, *15*(2), 485–502. <https://doi.org/10.1007/s11482-018-9702-4>

Miglianico, M., Dubreuil, P., Miquelon, P., Bakker, A. B., & Martin-Krumm, C. (2020).

Strength use in the workplace: A literature review. *Journal of Happiness Studies*, 21(2), 737–764. <https://doi.org/10.1007/s10902-019-00095-w>

Perrewé, P. L., Hochwarter, W. A., Rossi, A. M., Wallace, A., Maignan, I., Castro, S. L.,

Ralston, D. A., Westman, M., Vollmer, G., Tang, M., Wan, P., & Van Deusen, C. A.

(2002). Are work stress relationships universal? A nine-region examination of role stressors, general self-efficacy, and burnout. *Journal of International Management*, 8(2), 163–187. [https://doi.org/10.1016/S1075-4253\(02\)00052-2](https://doi.org/10.1016/S1075-4253(02)00052-2)

Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method

biases in behavioral research: A critical review of the literature and recommended

remedies. *Journal of Applied Psychology*, 88(5), 879–903. <https://doi.org/10.1037/0021-9010.88.5.879>

Roberts, L. M., Dutton, J. E., Spreitzer, G. M., Heaphy, E. D., & Quinn, R. E. (2005).

Composing the reflected best-self portrait: Building pathways for becoming extraordinary in work organizations. *Academy of Management Review*, 30(4), 712–736. <https://doi.org/10.5465/AMR.2005.18378874>

R Core Team (2020). *R: A language and environment for statistical computing* (Version

4.0.3) [Computer Software]. R Foundation for Statistical Computing, Vienna, Austria.

Retrieved from <https://www.R-project.org/>

Rosseel, Y. (2012). Lavaan: An R package for structural equation modeling. *Journal of*

*Statistical Software*, 48(2), 1-36. <https://doi.org/10.18637/jss.v048.i02>

Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction.

*American Psychologist*, 55(1), 5–14. <https://doi.org/10.1037/0003-066X.55.1.5>

- Siu, O.-I., Lu, C.-Q., & Spector, P. E. (2007). Employees' well-being in greater China: The direct and moderating effects of general self-efficacy. *Applied Psychology: An International Review*, *56*(2), 288-301. <https://doi.org/10.1111/j.1464-0597.2006.00255.x>
- Soper, D. S. (2021). *A-priori sample size calculator for structural equation models* [Computer Software]. Retrieved from <https://www.danielsoper.com/statcalc>
- Stander, F. W., Mostert, K., & de Beer, L. T. (2014). Organisational and individual strengths use as predictors of engagement and productivity. *Journal of Psychology in Africa*, *24*(5), 403–409. <https://doi.org/10.1080/14330237.2014.997007>
- Tajfel, H., & Turner, J. C. (1986). The social identity theory of intergroup behaviour. In S. Worchel & W. G. Austin (Eds.), *Psychology of intergroup relations* (pp. 7-24). Chicago: Nelson-Hall Publishers
- van de Schoot, R., Lugtig, P., & Hox, J. (2012). A checklist for testing measurement invariance. *European Journal of Developmental Psychology*, *9*(4), 486–492. <https://doi.org/10.1080/17405629.2012.686740>
- van Woerkom, M., Bakker, A. B., & Nishii, L. H. (2016). Accumulative job demands and support for strength use: Fine-tuning the job demands-resources model using conservation of resources theory. *Journal of Applied Psychology*, *101*(1), 141–150. <https://doi.org/10.1037/apl0000033>
- van Woerkom, M., & Meyers, M. C. (2015). My strengths count! Effects of a strengths-based psychological climate on positive affect and job performance. *Human Resource Management*, *54*(1), 81–103. <https://doi.org/10.1002/hrm.21623>
- van Woerkom, M., Mostert, K., Els, C., Bakker, A. B., de Beer, L., & Rothmann, S. Jr. (2016). Strengths use and deficit correction in organizations: Development and

- validation of a questionnaire. *European Journal of Work and Organizational Psychology*, 25(6), 960–975. <https://doi.org/10.1080/1359432X.2016.1193010>
- van Woerkom, M., Oerlemans, W., & Bakker, A. B. (2016). Strengths use and work engagement: A weekly diary study. *European Journal of Work and Organizational Psychology*, 25(3), 384–397. <https://doi.org/10.1080/1359432X.2015.1089862>
- Wegge, J., Van Dick, R., Fisher, G. K., Wecking, C., & Moltzen, K. (2006). Work motivation, organisational identification, and well-being in call centre work. *Work and Stress*, 20(1), 60–83. <https://doi.org/10.1080/02678370600655553>
- Wilson, J. M., Lee, J., Fitzgerald, H. N., Oosterhoff, B., Sevi, B., & Shook, N. J. (2020). Job insecurity and financial concern during the covid-19 pandemic are associated with worse mental health. *Journal of Occupational and Environmental Medicine*, 62(9), 686–691. <https://doi.org/10.1097/JOM.0000000000001962>
- Wood, A. M., Linley, P. A., Maltby, J., Kashdan, T. B., & Hurling, R. (2011). Using personal and psychological strengths leads to increases in well-being over time: A longitudinal study and the development of the strengths use questionnaire. *Personality and Individual Differences*, 50(1), 15–19. <https://doi.org/10.1016/j.paid.2010.08.004>
- Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2007). The role of personal resources in the job demands-resources model. *International Journal of Stress Management*, 14(2), 121–141. <https://doi.org/10.1037/1072-5245.14.2.121>

### Appendix

Descriptive Statistics Including Means, Standard Deviations, and Correlations Per Country.

Table A1

*Descriptive statistics of The Netherlands.*

Measure	<i>M (SD)</i>	1.	2.	3.	4.	5.	6.
1. POSSU	4.77 (1.42)	(.97)					
2. WID	3.72 (.62)	.69**	(.85)				
3. SE	3.98 (.60)	.18**	.27**	(.89)			
4. Age <sup>a</sup>	31.20 (12.38)	.20**	.22**	-.00	-		
5. Gender <sup>b</sup>	1.63 (.48)	-.02	-.06	-.10	-.05	-	
6. Education <sup>c</sup>	2.44 (.68)	.18**	.17**	.20**	.04	.02	-

*Note:* Means and standard deviations are reported for the study variables. Cronbach's alphas for the multi-item measures are reported on the diagonal. POSSU = perceived organizational support for strengths use; WRI = work-related identity; SE = self-efficacy.

<sup>a</sup>Age in years

<sup>b</sup>Gender (1 = *Male*; 2 = *Female*)

<sup>c</sup>Education (1 = *Low*, 2 = *Medium*, 3 = *High*)

\*  $p \leq .05$ ; \*\*  $p \leq .01$

Table A2

*Descriptive statistics of Greece.*

Measure	<i>M</i> ( <i>SD</i> )	1.	2.	3.	4.	5.	6.
1. POSSU	4.54 (1.37)	(.95)					
2. WID	3.60 (.74)	.60**	(.89)				
3. SE	4.10 (.64)	.14	.41**	(.91)			
4. Age <sup>a</sup>	37.20 (9.58)	.06	.16*	.06	-		
5. Gender <sup>b</sup>	1.60 (.49)	.13	.06	.06	.10	-	
6. Education <sup>c</sup>	2.74 (.44)	-.14	-.14	-.11	-.01	-.07	-

*Note:* Means and standard deviations are reported for the study variables. Cronbach's alphas for the multi-item measures are reported on the diagonal. POSSU = perceived organizational support for strengths use; WRI = work-related identity; SE = self-efficacy.

<sup>a</sup>Age in years

<sup>b</sup>Gender (1 = *Male*; 2 = *Female*)

<sup>c</sup>Education (1 = *Low*, 2 = *Medium*, 3 = *High*)

\*  $p \leq .05$ ; \*\*  $p \leq .01$