

PREDICTING WORK ENGAGEMENT IN GREEK EMPLOYEES: THE INFLUENCE OF PERCEIVED ORGANIZATIONAL SUPPORT AND SELF-EFFICACY

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Abstract

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The present study investigated the predictive capacity of perceived organizational support (POS) and self-efficacy (SE) regarding work engagement (WE). A quantitative survey was conducted utilizing a self-report questionnaire administered to a sample of 180 Greek employees from both the private and public sectors. Results indicated statistically significant positive correlations between POS and WE, and between SE and WE. Multiple linear regression analysis revealed that both POS and SE were significant positive predictors of WE, with the overall model explaining 13.5 percent of the variance in WE. Furthermore, analyses of mean differences demonstrated that employees in managerial positions reported significantly higher levels of WE compared to those in non-managerial positions (Kahn, 1990; Schaufeli et al., 2006; Sharma & Rajput, 2021). *Post-hoc* comparisons also showed that married employees exhibited significantly higher WE than single employees (Sharma & Rajput, 2021). These findings are discussed in relation to existing literature, and practical implications for cultivating WE in the workplace are proposed. The research contributes to the understanding of factors influencing WE among Greek employees and offers tangible suggestions for employers.

Keywords: Job Demands-Recourses Model, Cross-Sectional Survey, Self-Report Questionnaire, Multiple Regression, Demographic Characteristics, Mean Differences

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1. INTRODUCTION

Globally, organizations strive to maintain their competitiveness within a constantly changing

environment characterized by economic turbulence, technological innovations, market uncertainty, workforce diversity, and intensified globalization (Kotenko et al., 2021). Under these conditions,

the work engagement (WE) of the workforce emerges as a factor of strategic importance for sustainable performance and organizational well-being (Gallardo-Gallardo et al., 2020).

The recent research shift in organizational behavior increasingly focuses on positive psychological states, such as WE (Kirilmaz, 2022), moving away from earlier approaches that focused exclusively on burnout and dissatisfaction (Bakker & Demerouti, 2008). WE refers to a rewarding and positive mindset towards one's job, which is manifested through vigor, dedication, and a state of complete focus known as absorption (Schaufeli & Bakker, 2004). Although considered one of the most critical concepts in positive organizational behavior (Listau et al., 2017), the rates of employees reporting psychological engagement remain low (Musenze et al., 2021).

The job demands-resources (JD-R) model is the theoretical framework underlying the present study. According to the JD-R model, WE is primarily cultivated through a motivational process driven by the presence of adequate job resources. Resources such as autonomy, supervisor support, quality of leadership, skill variety, opportunities for development, and feedback are considered to have intrinsic motivational potential, as they fulfill basic psychological needs, encourage personal growth, and facilitate the achievement of work-related goals (Bakker & Demerouti, 2007). The robust positive relationship between these job resources and WE has been extensively confirmed in empirical studies, establishing them as key predictors (Schaufeli & Bakker, 2004). More recently, the JD-R theory has expanded to also incorporate the crucial role of personal resources, such as self-efficacy (SE), optimism, and resilience, which are individuals' psychological capacities that help them control and impact their environment successfully (Bakker & Demerouti, 2017). Grounded in this comprehensive, updated framework, the present study investigates the synergistic influence of both job resources and personal resources on fostering employee engagement. Within this framework, two key variables of the present study, perceived organizational support (POS) and SE, function as psychological resources that enhance engagement (Schaufeli, 2017). This theoretical framework underscores the need to develop targeted strategies for enhancing these factors among employees.

Within this JD-R framework, key resources warranting investigation include organizational support and personal psychological resources. When employees perceive that their organization appreciates their efforts and cares about their well-being, a concept known as POS, they are significantly more likely to experience WE. This perception is also a crucial resource for the organization itself (Eisenberger et al., 1986; Kurtessis et al., 2017). Recent studies confirm that POS acts as an emotional catalyst, enhancing the positive psychological state of employees, especially during periods of organizational change or uncertainty (Katsaros, 2024). Moreover, Musenze et al. (2022) point to a synergistic effect, arguing that POS is most impactful on engagement when it co-occurs with personal assets, exemplified by an employee's SE.

Consistent with this, SE, which refers to an individual's confidence in their ability to successfully plan and execute actions to achieve desired outcomes (Bandura, 1997), is positively

associated with WE (Nugraha & Kharismasyah, 2024). As a key personal psychological resource, it contributes to enhancing persistence, a sense of control, and adaptability within the work environment (Hefferon & Boniwell, 2019). Contemporary empirical studies confirm that high levels of SE increase the likelihood of active and enthusiastic involvement in work (Nugraha & Kharismasyah, 2024), particularly when the workforce perceives the organization as being genuinely invested in their welfare (Musenze et al., 2022).

Although POS and SE are recognized as salient factors associated with WE, their specific interplay and combined predictive role have not been extensively explored within the framework of the JD-R model. While recent research has examined related constructs or these variables in other contexts (Katsaros, 2024; Musenze et al., 2022), there remains a need for further empirical investigation to enhance the generalizability and robustness of findings related to organizational and personal resources within the JD-R framework across diverse working populations and settings.

The present study aims to address this gap by empirically investigating the predictive contribution of POS and SE to WE within a specific working population previously underrepresented in this line of research. By examining these organizational and personal resources concurrently within the JD-R model, this study seeks to strengthen the theoretical underpinnings of the model and provide novel insights into the motivational process leading to WE.

The theoretical significance of this research lies in contributing empirical evidence regarding the interplay of different types of resources as conceptualized by the JD-R model. On a practical level, the findings are expected to offer valuable, evidence-based insights for employers and organizations seeking to implement targeted strategies aimed at fostering and sustaining high levels of WE among their workforce, applicable to various organizational contexts.

The primary objective of this study is to determine the extent to which POS and SE predict WE. This research also explores the potential impact of demographic factors on WE. From a practical perspective, we aim to generate actionable insights and propose evidence-based strategies for Greek employers to foster and sustain high levels of WE within their workforce.

To fulfill these objectives, this study endeavors to investigate and address the following key research questions:

RQ1: Is perceived organizational support significantly positively related to employees' work engagement?

RQ2: Is self-efficacy significantly positively related to employees' work engagement?

RQ3: Do perceived organizational support and self-efficacy significantly predict work engagement?

RQ4: Do employees' work engagement significantly differ according to their demographic characteristics (gender, employment sector, job position, and marital status)?

The remainder of this paper is organized into six sections. Section 2 provides a review of the relevant literature and outlines the research hypotheses. Section 3 details the research methodology employed. Section 4 presents the results, including descriptive statistics and the findings from hypotheses testing. Section 5 discusses the study's

findings, and, finally, Section 6 addresses limitations, proposes practical implications, and offers the conclusion of the study.

2. LITERATURE REVIEW

2.1. Perceived organizational support and work engagement

The link between POS and beneficial employee outcomes, particularly WE, is well-documented in academic literature. At its core, POS captures an employee's perception of the organization's commitment. This perception is based on their belief that their contributions are highly valued and that the organization genuinely cares for their well-being (Eisenberger et al., 1986). When employees perceive high levels of organizational support, they tend to develop a sense of attachment and obligation towards the organization (Eisenberger et al., 2001; Eisenberger et al., 1986; Xanthopoulou et al., 2009). This psychological bond often motivates employees to respond with positive attitudes and behaviors that benefit the organization, including heightened dedication and engagement in their work (Musenze et al., 2021).

Research from various organizational settings consistently indicates that employees who feel more supported by their organization (POS) also report higher levels of WE. Leaders play a crucial role in cultivating POS by valuing employee contributions, demonstrating care for their well-being, actively listening to concerns, showing interest, providing support, ensuring fair treatment, and offering favorable working conditions (Eisenberger & Stinglhamer, 2011; Karatepe & Aga, 2016; Kurtessis et al., 2017).

Studies conducted in various international contexts have highlighted the significant influence of POS on WE. For instance, research among nurses in Jordan emphasized the necessity of strategies fostering organizational support, such as involving nurses in decision-making and goal implementation and aligning their values with the organization's vision, to enhance their WE (Al-Hamdan & Bani Issa, 2021). Similarly, a study in the primary education sector in Uganda underscored the importance of developing a supportive environment to promote high WE levels (Musenze et al., 2021). Findings from Uganda also highlighted that a combination of POS and SE significantly influences WE, providing clear direction for implementing policies focused on integrating these factors (Musenze et al., 2022). Research within the telecommunications sector in Greece demonstrates that organizational support during periods of change positively impacts WE, leading to improved employee and firm performance (Katsaros, 2024). Complementary findings from an Italian educational services company indicate that organizational support enhances trust and interpersonal relationships, subsequently fostering WE (Bonaiuto et al., 2022).

Based on the compelling empirical evidence demonstrating a consistent positive relationship between POS and WE across various contexts, we hypothesize that:

H1: Perceived organizational support will be significantly positively related to the work engagement of employees.

2.2. Self-efficacy and work engagement

Self-efficacy, defined as an individual's conviction in their capacity to organize and execute the courses of action required to manage prospective situations (Bandura, 1997), is recognized as a critical personal psychological resource. High levels of SE are associated with increased persistence, resilience, and a proactive approach to challenges within the work environment (Hefferon & Boniwell, 2019), factors that contribute positively to WE.

Empirical research consistently supports the positive relationship between SE and WE. For instance, studies have demonstrated a positive association between SE and WE, often highlighting its role in enhancing job satisfaction as well (Wang et al., 2024). Research conducted with teaching assistants in education similarly found that SE was positively linked to WE (Chan et al., 2020). Findings from various contexts, including studies by Al-Hamdan and Bani Issa (2021), underscore that SE positively contributes to higher levels of WE.

Furthermore, contemporary studies suggest that the effect of SE on WE may be enhanced when considered in conjunction with organizational factors. Musenze et al. (2022) confirmed that SE, in combination with perceived support from the organization, significantly strengthens employees' WE. This highlights the intertwined nature of personal and organizational resources in fostering engagement. The study by van Woerkom et al. (2016) provided evidence for this connection, showing that high levels of POS are linked to both enhanced SE and greater effectiveness in meeting professional objectives. This aligns with the understanding that an individual's psychological state, influenced by factors like POS, can impact SE beliefs (Bandura & National Institute of Mental Health [NIMH], 1986). Feeling recognized and supported by the organization can increase employees' confidence that their efforts will lead to desired outcomes (Eisenberger et al., 1986), thereby contributing to higher WE levels (Kurtessis et al., 2017).

Studies conducted during challenging periods, such as the COVID-19 pandemic, have further underscored the importance of psychological resources and organizational support. To illustrate, a study by Blaique et al. (2023) found that psychological empowerment, a concept conceptually linked to SE, plays a vital role in sustaining WE during periods of crisis. The implication is that employees who perceive a combination of support and empowerment are better able to maintain their engagement under pressure. Complementary research focusing on the impact of humanistic human resource management practices suggests that organizational care for employees can lead to higher engagement and better psychological well-being (Aldabbas & Blaique, 2025). These findings collectively suggest that POS and SE function together to enhance WE (Musenze et al., 2022), arguing for their joint examination.

Based on the theoretical understanding of SE as a personal resource and the empirical evidence supporting its positive association with WE, both individually and in combination with POS, we hypothesize that:

H2: Self-efficacy will be significantly positively related to the work engagement of employees.

H3: Perceived organizational support and self-efficacy will significantly predict work engagement.

2.3. The role of demographic factors in work engagement

Research exploring the relationship between demographic characteristics and WE has yielded varied and sometimes conflicting findings. Examining such demographic correlates can provide insights into potential subgroup differences in engagement levels.

Studies investigating gender differences in WE have presented inconsistent results. Some contemporary studies suggest that women may exhibit higher levels of WE than men, although this difference can be influenced by factors such as family responsibilities and societal expectations (Olafsdottir & Einarsdottir, 2024). It has been argued that while men might demonstrate a stronger desire for workplace success, women may show greater dedication to their work obligations, potentially driven by pressures to establish their position in traditionally male-dominated professions (Gallup, 2022). Conversely, in a study conducted in India, it was found that men exhibit higher WE in reward-driven work environments with demanding requirements, in comparison to women (Ghosh et al., 2020).

Findings regarding the association between employment sector and WE are also mixed. Some research suggests that employees in the private sector tend to report higher WE compared to those in the public sector (Agyemang & Ofei, 2013). This perspective aligns with the argument that private organizations often provide more incentives, potentially leading to higher performance and engagement among their members compared to the public sector (Breaugh et al., 2018). In contrast, other studies have found public sector employees to exhibit greater engagement, primarily attributed to a stronger sense of public service motivation and contribution to the common good (Ding & Wang, 2023).

The relationship between job position and WE has likewise shown variability in research. Some studies suggest a positive association, indicating that employees at higher organizational positions are more engaged (Sharma & Rajput, 2021). Potential explanations include greater autonomy, influence in decision-making, and enhanced access to information, which can contribute to a greater sense of meaningfulness and engagement (Kahn, 1990; Sharma & Rajput, 2021). Conversely, other research indicates that employees in lower positions can also exhibit high WE, particularly when supported by clear task structures and positive supervision (Kissi et al., 2024). Furthermore, comparative studies have shown lower WE among blue-collar workers compared to professions like professors or managers (Schaufeli et al., 2006), suggesting factors such as lower wages, social recognition, and limited career prospects may play a role (Jaworek, 2018). However, some research

indicates that autonomy and clear development opportunities can enhance engagement even in blue-collar positions (Bakker & Demerouti, 2007).

Finally, research on the relationship between marital status and WE has also yielded inconsistent results. Some studies report higher WE among married employees compared to unmarried individuals (Sharma & Rajput, 2021). Proposed reasons include increased responsibilities that may foster greater commitment to their organization and a sense of stability in both personal and professional life (Sharma & Rajput, 2021). In contrast, other research suggests that unmarried employees may demonstrate higher WE, possibly due to greater flexibility and fewer family-related responsibilities (Çemberci et al., 2022).

Given the inconsistent findings in the existing literature regarding the relationship between these demographic characteristics and WE, and to explore these potential associations within the context of the present study's sample, we propose the following hypothesis:

H4: The work engagement of employees will significantly differ according to their demographic characteristics (gender, employment sector, job position, and marital status).

3. RESEARCH METHODOLOGY

3.1. Design of the study

This study employed a cross-sectional survey design utilizing a self-report questionnaire to investigate the predictive roles of POS and SE on WE among employees in Greece. The survey was conducted following ethical approval granted by the Collaborative Research Ethics Committee (CREC) of Metropolitan College in Amarousion, Athens, Greece.

3.2. Participants

The study sample comprised 180 Greek adults. Participants ranged in age from 18 years old to 66 years old (mean (M) = 46.5, standard deviation (SD) = 8.75) and were drawn from both the private and public sectors, occupying diverse roles within their respective organizational hierarchies, including both managerial and non-managerial positions. Recruitment of participants occurred through various institutions within the training, employment, education, and healthcare sectors. Data were collected from different geographical regions across Greece, representing areas with both large and small population densities. Self-employed individuals were excluded from the study population on the premise that the construct of POS may not be applicable in such a work context by definition. Table 1 provides a detailed presentation of the demographic characteristics of the final sample.

Table 1. Description of the survey sample (N = 180)

<i>Demographic data</i>	<i>Categories</i>	<i>f (%)</i>	<i>M (SD)</i>
Gender	Male	57 (31.7)	46.5 (8.75 years)
	Female	123 (68.3)	
Age			
Marital status	Married	100 (55.6)	
	Unmarried	52 (28.9)	
	Divorced	24 (13.3)	
	Widowed	4 (2.2)	
Employment sector	Private	124 (68.9)	
	Public	56 (31.1)	
Job position	Managerial	49 (27.2)	
	Non-managerial	131 (72.8)	

3.3. Research tools

3.3.1. Perceived organizational support

Perceived organizational support was assessed using the short form of the Survey of POS (SPOS), specifically the eight-item scale (POS-8) developed from the original 36-item scale by Eisenberger et al. (1986). The use of the abbreviated POS-8 scale is supported by previous research (Eisenberger et al., 1997; Rhoades et al., 2001; Lynch et al., 1999), which indicates its unidimensionality and satisfactory internal reliability (Rhoades & Eisenberger, 2002). Responses were recorded on a seven-point Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree). An illustrative item from the scale is: “My organization is interested in my views”. Items such as “My organization shows very little interest in me” and “If given the opportunity, my organization would take advantage of me” were reverse-scored. For the purpose of this study, the scale was translated into Greek using a rigorous translation and back-translation procedure conducted by the researchers in collaboration with a team of bilingual translators. The internal consistency reliability of the scale in the current sample was found to be high, with a Cronbach's alpha coefficient of $\alpha = 0.872$.

3.3.2. Self-efficacy

Self-efficacy was measured using the generalized SE (GSE) scale, originally developed by Schwarzer and Jerusalem (1995). The Greek version of the scale, adapted by Glynou et al. (1994), was employed for this study. The questionnaire comprises ten items, rated on a Likert scale ranging from 1 (not at all true) to 4 (absolutely true). A representative item is: “I can always manage to solve difficult problems if I try hard enough”. In the present study, the internal consistency reliability of the GSE scale was found to be satisfactory, with a Cronbach's alpha coefficient of $\alpha = 0.869$.

3.3.3. Work engagement

Work engagement was assessed using the abbreviated nine-item version of the Utrecht WE Scale (UWES-9). This scale is a condensed form of the original 17-item scale developed by Schaufeli et al. (2002) and has been widely utilized in various studies (Bonaiuto et al., 2022; Caesens & Stinglhamber, 2014; Jaworek, 2018; Sharma & Rajput, 2021). The Greek adaptation of the UWES-9 by Xanthopoulou et al. (2013) was employed in the present study. The scale measures the three core dimensions of WE: vigor, dedication, and absorption. Responses are provided on a seven-point frequency scale ranging from 0 (never) to 6 (always) (Schaufeli & Bakker, 2004). Illustrative items for each dimension include: “At my work, I feel bursting with energy” (vigor), “My job inspires me” (dedication), and “I am immersed in my work” (absorption). The internal consistency reliability in the current sample was high for the overall scale ($\alpha = 0.932$). Reliability coefficients for the subscales were also satisfactory: vigor ($\alpha = 0.843$), dedication ($\alpha = 0.919$), and absorption ($\alpha = 0.747$).

3.4. Data collection procedure

Data for this study were collected using an electronic questionnaire administered via Google Forms, requiring approximately ten minutes for completion.

Participants were informed about the study's purpose and assured that their participation was anonymous and voluntary. Prior to commencing the questionnaire, participants provided informed consent by indicating their agreement to participate. The data collection process strictly adhered to the ethical principles outlined in the British Psychological Society's (BPS, 2021) Code of Ethics and Conduct.

The questionnaire link was disseminated through online communication platforms, specifically Messenger and Viber, leveraging the researchers' professional networks to reach employees in both the private and public sectors across Greece. Additionally, the link was distributed via email to contacts within the researchers' address books in various regions of Greece. The accompanying message provided essential information, including the study title, estimated completion time, target population, and an invitation to forward the questionnaire to other potentially interested employees. This approach facilitated data collection through a convenience and snowball sampling technique, whereby initial participants assisted in recruiting further participants from their own networks (Cohen et al., 2007). A total of 180 valid responses were collected within the first 20 days of June 2023.

3.5. Data analysis strategy

Statistical analysis of the collected data was conducted using Jamovi statistical software (Version 2.6.25). Preliminary data screening procedures included an examination of the distribution shape through skewness and kurtosis values, as well as the identification of potential outliers and missing data points. Subsequently, descriptive statistics, including means and standard deviations, were calculated for each variable. The internal consistency reliability of each scale was assessed using Cronbach's alpha coefficient. The significance level for all statistical tests was set at $p \leq 0.05$.

Bivariate correlations ($H1$ and $H2$) between POS and WE, and between SE and WE, were examined using Pearson's r correlation coefficient. Hypothesis $H3$ investigated the predictive power of POS and SE on WE (the dependent variable) and was tested using a multiple linear regression model. The analysis reported the multiple correlation coefficient (R), the coefficient of determination (R^2), and the statistical significance of the model through the F-ratio and associated p-value. For hypothesis $H4$, potential differences in WE across different demographic groups were examined. Independent samples t-tests were conducted to compare means based on gender, sector of employment (private vs. public), and job position (managerial vs. non-managerial). A one-way analysis of variance (ANOVA) was performed to examine potential differences in means across marital status categories (married, single, divorced, widowed). Following a significant ANOVA, *post-hoc* comparisons with Tukey honestly significant difference (HSD) were performed to explore pairwise differences between marital status categories.

The statistical analyses for this study were deliberately chosen to align directly with the specific research objectives, hypotheses, sample size, and a commitment to clarity and parsimony. Methods such as multiple regression and ANOVA provided the most direct, clear, and interpretable answers for the predictive and comparative questions. Given the sample size of 180 participants, these analyses offered robust and reliable results. While

a comprehensive structural equation model could be a valuable next step for future research to explore more complex interrelationships, our primary goal was to first establish these foundational predictive links in a clear and methodologically sound manner.

4. RESEARCH RESULTS

4.1. Descriptive statistics

Descriptive statistics for the three study variables — *POS*, generalized SE (*GSE*), and *WE* are presented in Table 2. These statistics include M, SD, minimum (Min), maximum (Max) values, as well as skewness

and kurtosis coefficients and their standard errors. The mean values indicate that, within this sample, *POS* ($M = 3.315$) was observed at moderate levels relative to its scale range (1–7). *WE* ($M = 4.17$) was slightly above the midpoint of its scale (0–6), suggesting a moderately high level. *GSE* ($M = 3.145$) was relatively high given its scale maximum of 4. An examination of the skewness and kurtosis values revealed that all three variables exhibited absolute values less than the conventional threshold of |3| (Tabachnick & Fidell, 2019), suggesting that the assumption of normality was not severely violated for the purpose of parametric statistical analyses.

Table 2. Descriptive statistics for *POS*, *GSE*, and *WE*

Variable	M	SD	Min	Max	Skewness	Std. err. skewness	Kurtosis	Std. err. kurtosis
<i>POS</i>	3.315	1.26	1	6.88	0.04	0.181	-0.53	0.360
<i>GSE</i>	3.145	0.43	1.9	4.00	0.004	0.181	-0.36	0.360
<i>WE</i>	4.17	1.11	1.44	6.00	-0.48	0.181	-0.48	0.360

Note: *POS*: 1 = strongly disagree, 7 = strongly agree; *GSE*: 1 = not at all true, 4 = absolutely true; *WE*: 0 = never, 6 = always.

4.2. Hypotheses testing

4.2.1. Bivariate correlations

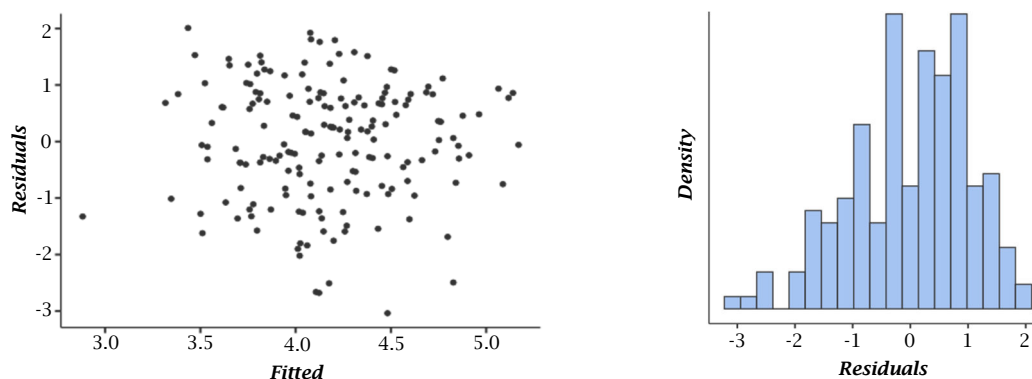
In the sample of 180 Greek employees, Pearson's product-moment correlation coefficient revealed a statistically significant positive relationship between *WE* and *POS*. The correlation coefficient was $r(178) = 0.310$, with $p < 0.001$ and a 95% confidence interval (CI) of [0.171, 0.436]. Based on conventional guidelines (Cohen, 1988), the magnitude of this correlation is considered to be weak to moderate. Similarly, a statistically significant positive correlation was found between *GSE* and *WE*, $r(178) = 0.258$, $p < 0.001$, 95% CI [0.116, 0.389]. This relationship demonstrated a weak magnitude within the present sample. These findings indicate statistically significant support for hypotheses *H1* and *H2*.

4.2.2. Prediction of work engagement

To examine the simultaneous prediction of *WE* by *POS* and *GSE*, a multiple linear regression analysis was conducted. Prior to interpreting the model,

the assumptions underlying multiple linear regression were assessed. The scatter plot of the dependent variable against the linear combination of predictors indicated a linear relationship. The Durbin-Watson (DW) statistic ($DW = 2.12$, $p = 0.418$) suggested independence of residuals, as the value was close to 2 and the associated p-value was non-significant. Multicollinearity was not a concern, as the variance inflation factor (VIF) values for both predictors were below 2. Examination of Cook's distance revealed a maximum value of 0.064, well below the conventional threshold of 1, indicating the absence of influential univariate outliers. Furthermore, no cases exhibited Mahalanobis distances exceeding the critical χ^2 value for the number of predictors at $p < 0.001$, suggesting the absence of multivariate outliers. Visual inspection of the scatter plot of standardized residuals versus standardized predicted values showed a random distribution, supporting the assumption of homoscedasticity (see Figure 1). Moreover, the histogram of the residuals suggested that the assumption of normality of residuals was adequately met (Figure 1).

Figure 1. Residuals, homoscedasticity, and normality



As presented in Table 3, the overall regression model significantly predicted *WE* ($F(2,177) = 13.9$, $p < 0.001$). The model accounted for a statistically significant proportion of the variance in *WE*, $R^2 = 0.135$. This indicates that approximately 13.5% of the variance in *WE* in this sample can be

explained by the combined variance in *POS* and *GSE*. The adjusted R^2 was 0.126, suggesting that the model's generalizability to the wider population might be somewhat lower than its fit to the current sample.

Table 3. Model fit measures

<i>Model</i>	<i>R</i>	<i>R</i> ²	<i>Adjusted R</i> ²	<i>F</i>	<i>df1</i>	<i>df2</i>	<i>p</i>
1	0.368	0.135	0.126	13.9	2	177	< 0.001

As presented in Table 4, individual predictor coefficients were examined using t-tests. Both *POS* and *GSE* were found to be statistically significant unique predictors of *WE*. Specifically, *POS* was a significant positive predictor ($b = 0.237$,

Std. err. = 0.063, $\beta = 0.268$, $t(177) = 3.76$, $p < 0.001$, 95% CI [0.113, 0.362]). *GSE* was a significant positive predictor ($b = 0.526$, Std. err. = 0.185, $\beta = 0.203$, $t(177) = 2.84$, $p = 0.005$, 95% CI [0.160, 0.892]).

Table 4. Regression coefficients

<i>Predictor</i>	<i>b</i>	<i>Std. err.</i>	95% CI		<i>t</i>	<i>p</i>	β
			<i>Lower</i>	<i>Upper</i>			
Intercept	3.302	0.663	1.993	4.611	4.98	0.021	
<i>POS</i>	0.237	0.063	0.362	0.113	3.76	< 0.001	0.268
<i>GSE</i>	0.526	0.185	0.160	0.892	2.84	0.005	0.203

Interpretation of the unstandardized coefficients indicates that, holding *GSE* constant, a one-unit increase in *POS* is associated with an increase of 0.237 units in *WE*. Conversely, holding *POS* constant, a one-unit increase in *GSE* is associated with an increase of 0.526 units in *WE*. Examination of the standardized beta coefficients (β) reveals the relative unique contribution of each predictor. *POS* ($\beta = 0.268$) had a larger unique contribution to the prediction of *WE* in this model compared to *GSE* ($\beta = 0.203$). These results indicate that *POS* and *GSE*, when considered together, are significant predictors of *WE* in the studied sample, thus supporting hypothesis *H3*.

4.2.3. Comparisons of means

To examine potential differences in *WE* across gender, sector of employment (private vs. public), and job position (managerial vs. non-managerial), a series of three independent samples t-tests was conducted. Prior to conducting each t-test, the assumption of homogeneity of variances between groups was assessed using Levene's test. As presented in Table 5, Levene's test for *WE* scores across gender ($F(1, 178) = 2.405$, $p = 0.123$) and sector of employment ($F(1, 178) = 1.162$, $p = 0.282$) were not statistically significant, indicating that the assumption of homogeneity of variances was met for these comparisons. Consequently, Student's t-tests, assuming equal variances, were conducted. However, Levene's test for job position was

statistically significant ($F(1, 178) = 4.595$, $p = 0.033$), suggesting heterogeneity of variances between the managerial and non-managerial groups. For this comparison, a Welch's t-test, which does not assume equal variances, was performed.

Table 5. Results of Levene's test for homogeneity of variance in *WE* across demographic groups

<i>Variable</i>	<i>F</i>	<i>df1</i>	<i>df2</i>	<i>p</i>
Gender	2.405	1	178	0.123
Sector of employment	1.162	1	178	0.282
Job position	4.595	1	178	0.033

The results of the independent samples t-tests are detailed in Table 6. The t-test for gender revealed no statistically significant difference in *WE* between male and female employees ($t(178) = 0.363$, $p = 0.717$). The mean difference was small (0.065), and the effect size was negligible (Cohen's $d = 0.058$). Similarly, there was no statistically significant difference in *WE* found between employees in the private and public sectors ($t(178) = 1.651$, $p = 0.100$). The mean difference was 0.294, with a small effect size (Cohen's $d = 0.266$). However, a statistically significant difference in *WE* was observed based on job position ($t(105.663) = 2.353$, $p = 0.020$). Employees in managerial positions reported statistically significantly higher *WE* compared to those in non-managerial positions. The mean difference was 0.394, indicating a small to moderate effect size (Cohen's $d = 0.375$).

Table 6. Independent samples t-test comparisons of *WE* across demographic groups

<i>Variable</i>	<i>t</i>	<i>df</i>	<i>p</i>	<i>Mean difference</i>	<i>Std. err. difference</i>	<i>Cohen's d effect size</i>
Gender	0.363	178.000	0.717	0.065	0.179	0.058
Sector of employment	1.651	178.000	0.100	0.294	0.178	0.266
Job position	2.353	105.663	0.020	0.394	0.168	0.375

Note: For the job position, Welch's t-test was used due to unequal variances.

To examine potential significant differences in *WE* scores among employees grouped by marital status (married, single, divorced, widowed), a one-way ANOVA was performed. Prior to the ANOVA, assumptions were assessed. Levene's test for homogeneity of variances indicated that the assumption of equal variances across groups was met ($F(3,176) = 0.346$, $p = 0.792$). The Shapiro-

Wilk test for normality showed a violation of the normality assumption ($W = 0.973$, $p = 0.001$); however, ANOVA is considered robust to moderate violations of normality, particularly with a sample size of 180. The ANOVA revealed a marginally statistically significant effect of marital status on *WE* ($F(3,176) = 2.617$, $p = 0.050$). The effect sizes were small ($\eta^2 = 0.043$, $\omega^2 = 0.026$).

Table 7. One-way ANOVA comparing WE across marital status categories

Category	Sum of squares	df	Mean square	F	p	η^2	ω^2
Marital status	9.455	3	3.152	2.167	0.050	0.043	0.026
Residuals	211.962	176	1.204				

Post-hoc comparisons using Tukey's HSD test were conducted to explore the differences between specific marital status groups. The results indicated a statistically significant difference in WE between married ($M = 4.362$, Std. err. = 0.110) and single employees ($M = 3.855$, Std. err. = 0.152), with married employees reporting significantly higher WE (Mean difference = 0.508, Std. err. = 0.188, $t(176) = 2.705$, $p_{\text{Tukey}} = 0.037$). The effect size for this comparison

was moderate (Cohen's $d = 0.462$). No other pairwise comparisons between marital status groups reached statistical significance ($p_{\text{Tukey}} > 0.05$). In summary, while the overall effect of marital status on WE was marginally significant, post-hoc analysis revealed that married employees reported statistically significantly higher levels of WE compared to single employees.

Table 8. Post hoc comparisons for marital status

Comparison of marital status	Mean difference	Std. err.	df	t	p_{Tukey}	Cohen's d
Married-Single	0.508	0.188	176.000	2.705	0.037	0.462
Married-Divorced	0.242	0.249	176.000	0.970	0.767	0.220
Married-Widowed	0.557	0.560	176.000	0.995	0.753	0.507
Single-Divorced	-0.266	0.271	176.000	-0.981	0.760	-0.242
Single-Widowed	0.049	0.569	176.000	0.086	1.000	0.045
Divorced-Widowed	0.315	0.593	176.000	0.531	0.951	0.287

Figure 2. Differences in mean WE by marital status

5. DISCUSSION

This research was designed to assess the predictive influence of POS and SE on WE. The study utilized a sample of 180 Greek employees drawn from both the public and private sectors. A secondary objective was to examine the associations between WE and a range of demographic factors. In alignment with the JD-R model and the study's hypotheses, the results confirmed that both organizational resources (POS) and personal resources (SE) are powerful predictors of employee engagement.

The results indicated a significant positive association between POS and WE. This finding aligns strongly with established theory and a substantial body of empirical evidence suggesting that when employees feel valued and cared for by their organization, they are more likely to reciprocate with increased commitment and engagement in their work (Eisenberger et al., 1986; Eisenberger et al., 2001; Eisenberger & Stinglhamber, 2011; Karatepe & Aga, 2016; Kurtessis et al., 2017; Musenze et al., 2021; Xanthopoulou et al., 2009). This outcome substantiates the core proposition of the JD-R model, which posits that job resources, including organizational support, serve as critical factors in enhancing employee engagement and overall well-

being (Bakker & Demerouti, 2007). This finding is particularly salient in the Greek context, where building trust and demonstrating genuine care can serve as a powerful buffer against economic uncertainty and foster loyalty in a way that purely transactional rewards may not. Findings from diverse contexts, such as the telecommunications sector in Greece (Katsaros, 2024) and an Italian educational service company (Bonaiuto et al., 2022), further corroborate the positive link between organizational support and WE, underscoring the generalizability of this relationship.

Furthermore, the study confirmed a significant positive association between SE and WE, corroborating findings in the existing literature (Chan et al., 2020; Wang et al., 2024). This result highlights the crucial role of SE as a key personal psychological resource. This aligns directly with the expanded JD-R theory, which posits that personal resources function as intrinsic motivational drivers of work engagement (Bakker & Demerouti, 2017). SE beliefs empower employees, activating their motivation, increasing effort expenditure, enhancing persistence in the face of challenges, and ultimately leading to higher levels of emotional involvement and engagement in their work (Hefferon & Boniwell, 2019; Nugraha & Kharismasyah, 2024).

As an important internal control mechanism, SE guides employee actions and emotional states, which are fundamental for positive work-related outcomes such as engagement (Musenze et al., 2022). This implies that beyond simply hiring confident individuals, organizations can strategically cultivate engagement by investing in training, providing mastery experiences, and fostering a climate of supportive feedback designed to actively build employees' SE.

Consistent with hypothesis *H3*, the multiple linear regression analysis demonstrated that both POS and SE were significant positive predictors of WE when examined simultaneously. This finding aligns with research suggesting that a supportive work environment, coupled with an employee's belief in their own capabilities, is conducive to higher WE (Karatepe & Aga, 2016; Kurtessis et al., 2017; Musenze et al., 2022). The combined predictive power of these organizational and personal resources underscores the interactive nature of different resource types within the JD-R framework in driving employee engagement (Bakker & Demerouti, 2017). This synergy suggests that POS may create a safe and empowering environment where employees with high SE feel emboldened to take initiative, innovate, and fully invest their personal energy, knowing their efforts will be recognized and supported. From a practical perspective, this result emphasizes that fostering WE effectively may require a dual focus on enhancing both the support employees receive from their organization and their confidence in their own abilities.

Beyond the primary predictors, the study also explored potential differences in WE based on demographic characteristics, yielding mixed findings consistent with the complexity observed in previous research. Regarding gender, the analysis did not reveal a statistically significant difference in WE between male and female employees in this sample. This finding contrasts with some studies reporting higher engagement among women (Olafsdottir & Einarsdottir, 2024) but aligns with the notion that gender differences in WE may be influenced by various contextual factors beyond psychological predisposition (Jaworek & Dyląg, 2016). The absence of a significant difference in this study could suggest that, within the specific characteristics of this Greek sample and their work environments, gender alone does not significantly differentiate levels of WE. It is plausible that the influence of powerful drivers like POS and SE is so pronounced that it overshadows any potential variance attributable to gender alone, suggesting that engagement in this sample is shaped more by work conditions than by demographic identity.

Similarly, no statistically significant difference in WE was found between employees in the private versus the public sector. This result reflects the divergent findings in the existing literature, where some studies report higher engagement in the private sector, often linked to incentives and advancement opportunities (Breaugh et al., 2018; Agyemang & Ofei, 2013), while others indicate higher engagement in the public sector, often associated with a stronger sense of public service purpose (Ding & Wang, 2023). The lack of a significant difference in this study suggests that the factors influencing WE may be more dependent on specific organizational cultures, job characteristics, or individual motivations that cut across sectoral boundaries in this context. Crucially, this lack of

difference reinforces the universality of the JD-R model's core tenets. It suggests that the fundamental psychological drivers of engagement — feeling supported and capable — transcend sectoral boundaries, making interventions based on these principles applicable and valuable for both public and private organizations in Greece.

In contrast, a statistically significant difference in WE was observed based on job position, with employees in managerial positions reporting higher engagement than those in non-managerial roles. This outcome is consistent with a considerable body of research highlighting a positive association between hierarchical position and WE (Kahn, 1990; Jaworek, 2018; Schaufeli et al., 2006; Sharma & Rajput, 2021). Higher job positions often afford greater autonomy, involvement in decision-making, and access to resources, contributing to enhanced perceptions of meaningfulness and control, which are central to engagement (Kahn, 1990; Sharma & Rajput, 2021). While it is acknowledged that engagement is possible across all positions, even in roles traditionally associated with lower engagement under supportive conditions (Kissi et al., 2024), the findings here reinforce the prevalent pattern of higher engagement in leadership positions. This highlights a critical challenge for organizations: how to redesign or enrich non-managerial roles to include more of these engaging characteristics. Fostering engagement across the entire hierarchy may depend on cascading resources like autonomy and decision-making influence to frontline employees.

Finally, the analysis revealed a statistically significant difference in WE based on marital status, with married employees reporting higher engagement than unmarried employees. This finding aligns with research suggesting that the stability and increased responsibilities often associated with marriage may foster greater commitment and a reduced likelihood of turnover, contributing to higher engagement (Sharma & Rajput, 2021). While some research has indicated the opposite (Çemberci et al., 2022), potentially due to greater flexibility among unmarried individuals, the results of the present study provide empirical support for the perspective that, within this sample, marital status is a relevant correlate of WE. However, this correlational finding should be interpreted with caution. It is possible that this reflects a selection effect, whereby personality traits associated with a preference for stability and commitment influence both the likelihood of being married and the propensity for work engagement, rather than a direct causal link.

6. CONCLUSION

While this study offers valuable insights into the predictors of WE, it's important to acknowledge its inherent limitations in research design and data collection. Primarily, the use of convenience sampling restricts the generalizability of our findings to the broader Greek working population (Cohen et al., 2007). Future research should therefore prioritize probability sampling with larger, more demographically balanced samples. Additionally, our reliance on self-report questionnaires introduces potential risks like common method bias (Kaltsonoudi et al., 2022; Podsakoff et al., 2024) and social desirability bias (Rudman & Goodwin, 2004; van de Mortel, 2008). To mitigate these concerns, we recommend incorporating multiple data sources or utilizing longitudinal designs in subsequent studies.

Building upon these findings and acknowledging the aforementioned limitations, several avenues for future research emerge to advance our understanding of WE predictors. While POS and SE were identified as significant predictors of WE, our results suggest other factors may also be at play. Therefore, we advise investigating underlying psychological processes and exploring mediation models (e.g., psychological empowerment) to uncover more nuanced relationships. Furthermore, given the cross-sectional design of this study, which inherently limits causal inference, longitudinal studies are crucial. Such designs would enable a deeper understanding of how POS, SE, and WE relationships evolve over time. Finally, adopting a sequential mixed-methods approach, beginning with a qualitative phase followed by a quantitative one, would offer a more comprehensive and holistic picture of WE dynamics.

The findings of the present study offer valuable practical implications for organizations aiming to enhance employee WE, particularly by focusing on the cultivation of organizational and personal resources as highlighted by the JD-R model (Bakker & Demerouti, 2007). The empirical results, consistent with previous research, underscore the significant positive associations of both POS (Eisenberger et al., 1986; Eisenberger et al., 2001; Eisenberger & Stinglhamber, 2011; Gouldner, 1960; Karatepe & Aga, 2016; Kurtessis et al., 2017; Musenze et al., 2021; Xanthopoulou et al., 2009) and SE (Al-Hamdan & Bani Issa, 2021; Chan et al., 2020; Musenze et al., 2022; Wang et al., 2024) with WE. Translating these findings into actionable strategies is crucial for fostering a more engaged workforce.

Based on the confirmed predictive roles of POS and SE, the following practical recommendations are proposed for employers seeking to enhance employee WE:

- **Invest in leadership and employee development programs:** Implementing executive, leadership, and business coaching sessions can effectively enhance employees' SE. By strengthening their confidence in facing challenges and achieving goals, such development initiatives contribute directly to increased WE (Wang et al., 2024). Concurrently, providing training focused on employee support practices, such as effective change management, constructive feedback delivery, and supportive leadership behaviors, is crucial. This type of training enhances employees' perception of organizational support, thereby fostering higher WE (Katsaros, 2024).

- **Cultivate a culture of recognition and constructive feedback:** Establishing an organizational culture where employees receive regular, specific, and constructive feedback, alongside recognition for their efforts and contributions, is vital. This practice reinforces employees' sense of being valued by the organization, directly enhancing POS and bolstering SE, which in turn leads to higher levels of WE (Chan et al., 2020).

- **Strengthen trust and interpersonal relationships:** Promoting a climate of trust between employees and management, as well as actively working to strengthen positive interpersonal relationships among colleagues, contributes significantly to creating a supportive and psychologically safe work environment. This supportive context is foundational for enhancing both POS and WE (Bonaiuto et al., 2022).

- **Adopt supportive and flexible work policies:** Implementing organizational policies that demonstrate care for employee well-being, such as offering flexible work arrangements, promoting work-life balance, and providing clear opportunities for professional development and advancement, is key to increasing employees' perception of organizational support. Feeling supported through such policies is strongly associated with higher WE (Katsaros, 2024).

Implementing these evidence-based practices, grounded in the significant predictive roles of POS and SE, can substantially contribute to enhancing employee WE, ultimately benefiting both the employees and the overall organizational performance.

In contemporary professional landscapes marked by volatility and the persistent risk of burnout, fostering employee WE is not merely advantageous; it is a strategic imperative for organizational sustainability and thriving. The present study contributes empirical evidence by confirming that POS and SE serve as fundamental and significant predictors of this vital construct. Our findings underscore that these are not abstract theoretical concepts but tangible factors that profoundly influence an employee's psychological connection to their work and organization.

Specifically, this research demonstrates that when employees feel genuinely supported by their organization and possess confidence in their own capabilities to meet job demands, their relationship with work transcends mere task completion. They become active contributors, invested participants, and drivers of positive workplace dynamics. The study affirms that cultivating such engagement is not achieved through directive approaches but through fostering an environment built on trust, empowering individuals, and providing tangible support structures.

In reinforcing the empirical validity of the JD-R model as a robust framework for understanding the interplay of job resources and employee outcomes, this study highlights the critical roles of both organizational (POS) and personal (SE) resources. Ultimately, this research underscores a key message: in the complex ecosystem of the modern workplace, prioritizing and strategically enhancing both the support employees receive and their belief in themselves is paramount to unlocking their full potential and fostering a truly engaged, resilient, and co-creative workforce.

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