

## Stress and Job Satisfaction in Peruvian Public Officials: Engagement as a Mediating Factor

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**Abstract:** This study examined how participation mediates job stress and job satisfaction among staff in Peruvian public institutions. The study employed a quantitative, non-experimental, and cross-sectional design. A survey using a five-level Likert-type scale was administered to 144 employees of the National Superintendency of Public Registries (SUNARP). The survey's consistency, reliability, and presentation were evaluated using PLS-SEM (Partial Least Squares Structural Equation Modeling). Structural equation testing demonstrated that engagement mediates the relationship between job stress and job satisfaction. The study found that stress and engagement are significantly negatively related, with a path coefficient of -0.726. Work engagement and job satisfaction are positively related, with a path coefficient of 0.762. Additionally, job stress and job satisfaction are negatively related, with a path coefficient of -0.103.

**Keywords:** Work Stress, Engagement, Public Institution, Job Satisfaction

**Type:** Research paper



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### 1. Introduction

Stress-related health problems dominate the 21st century, as stress has become a pervasive issue that advances annually, affecting men and women differently (Martinez-Harlow, 2020). With 35% of workers worldwide experiencing work-related stress, this represents a significant problem. Organizations incur substantial costs due to human suffering and economic losses (Rojas-Solís et al., 2021). According to Trinidad Aparicio, a clinical psychologist, factors such as unfair salaries, poor work environments, inadequate working conditions, and even employees' personalities and personal circumstances contribute to widespread dissatisfaction in the workplace (Restrepo & Lemos, 2021). A few years ago, the United Nations classified work stress as a societal "evil." It is estimated that this condition reduces the productivity of companies in Peru by approximately US\$2,800 per

employee. Work stress negatively affects both individuals and organizations (Osorio-Martínez et al., 2022). Because job satisfaction significantly impacts corporate success, it is now used as a metric to evaluate the quality of work, profitability, productivity, and employees' adaptability to their workplace. Job satisfaction is influenced by an employee's ideas, beliefs, and views regarding their job, which collectively form their cognition (Barreto-Aranha et al., 2021). Satisfied public employees are less likely to quit or miss work, saving human resources time and money, while also boosting productivity. When employees perceive that their organization supports their interests, they are more motivated and work harder. Workplace satisfaction reduces social and psychological risks while increasing profitability for organizations. Job satisfaction reflects a broad attitude encompassing work, compensation, the work environment, stimulation, management, interpersonal relationships, and opportunities for growth and development (Requejo et al., 2023). Furthermore, research by Caravaca-Sánchez et al. (2019) highlighted that engagement involves employees' involvement and dedication to their organization, contributing to positive outcomes. One study found that only 13% of workers across various nations report being highly energetic, enthusiastic about their work, and actively engaged in daily tasks. Work engagement, a relatively new concept, has grown rapidly in importance over the past five years (Salcedo, 2021). Engagement supports both individual and team performance in organizations, enhancing productivity while addressing interpersonal and work-related dynamics. In the 20th century, job satisfaction was a frequently discussed topic. While work happiness increases with salary (Cortez-Rodríguez, 2023), only 52% of individuals earning more than \$50,000 are satisfied with their jobs (De la Cruz-Portilla, 2020). This study examined stress and job satisfaction among staff at the National Superintendency of Public Records (SUNARP) through participation. Expert opinions from personnel within SUNARP's Administration Unit and staff attendance reports revealed issues of tardiness among open-term, fixed-term, and CAS workers. These employees are allowed 30 to 50 minutes of monthly tolerance for lateness, depending on their employment type. However, audits showed that 38% of staff violated tardiness policies, resulting in disciplinary action. This suggests disengagement among workers. These findings indicate that work stress at the National Superintendency of Public Records must be managed effectively to ensure optimal institutional performance and the achievement of organizational objectives. However, those responsible for addressing these issues often fail to take action, instead increasing the workload and responsibilities of already stressed employees. This raises the question: How does participation mediate work stress and job satisfaction among workers in Peruvian public institutions?

## **2. Literature Review and Theoretical Background**

Wang et al. (2022) studied the relationship between job stress and job satisfaction among disability assistance workers, mediated by organizational engagement. Their research examined how job stress affects job satisfaction and how organizational engagement mediates this effect. The study involved 210 disability support workers from Jeonbuk Disability Support. The findings revealed the following: (1) Job stress reduces job satisfaction, (2) Organizational engagement increases job satisfaction, and (3) Organizational engagement partially mediates the relationship between job stress and job satisfaction. Rachmah et al. (2022), in their study *Organizational Engagement and Transformational Leadership: How Job Satisfaction and Stress Mediate the Relationship*,

explored the impact of transformational leadership on companies in the construction services sector. Using a sample of 344 employees from PT Wijaya Karya (Persero) Tbk and data analyzed through SEM-PLS, they found that transformational leadership enhances organizational engagement, job satisfaction, and stress management. Controlling work stress increases employee loyalty, while work happiness fosters corporate dedication and engagement. Results showed that organizational engagement and transformational leadership moderate the relationship between job satisfaction and stress. Nassani et al. (2023) examined the impact of job satisfaction, burnout, and stress on organizational engagement in Saudi Arabia's private sector. Their study analyzed how job satisfaction and burnout mediate the relationship between job stress and organizational engagement, using a sample of 244 workers. Findings revealed that job stress increases burnout and reduces job satisfaction. Low job satisfaction negatively impacts organizational dedication. However, job satisfaction can mitigate burnout and enhance organizational engagement, whereas burnout mediates the relationship between occupational stress and satisfaction. Orgambidez-Ramos et al. (2014) investigated how work engagement regulates the connection between stress and job satisfaction. Their research, conducted on 586 workers from southern Spain, employed structural equation modeling (SEM) and found that role conflict and ambiguity significantly predicted job satisfaction. Role stress directly impacted satisfaction more than engagement. However, the study also identified a positive correlation between engagement and job satisfaction, indicating that individuals with high engagement and low role stress experience greater job satisfaction. Lupano-Perugini & Waisman (2018) explored employee and managerial perceptions of work engagement. Their exploratory, correlational study revealed that while many participants were unfamiliar with the term "engagement," they recognized its characteristics after explanation. The study highlighted factors promoting engagement, including physical aspects (e.g., dedication, enthusiasm) and cognitive aspects (e.g., attention, absorption). These findings align with previous research emphasizing the importance of both physical and cognitive dimensions in fostering engagement.

### **2.1. Work Stress**

Stress has been defined in various ways. Early definitions described it as "any stimulus capable of provoking a reaction" in people (Buitrago-Orjuela et al., 2021). Robles-Medina (2023) identified stress as a psychophysiological condition affecting global populations, necessitating stress management training to handle social, professional, and emotional challenges. Stress involves physical, physiological, and emotional reactions to environmental stimuli (Burman & Goswami, 2018). While natural and essential in moderation, excessive stress can cause diseases and disorders, hindering proper growth and functioning (Nurvianida-Nasrul et al., 2023). Work stress arises from physiological processes linked to harmful workplace tensions, potentially damaging workers' health (Hernández-Rincón et al., 2022). Role ambiguity and conflict significantly contribute to stress. Clear work goals and responsibilities can reduce stress (Gede et al., 2023), while role conflict exacerbates it. Managing job expectations and demands can mitigate stress caused by role conflicts.

### **2.2. Job Satisfaction**

Specchia et al. (2021) defined job satisfaction as a reflection of an individual's overall attitude toward their work, encompassing their participation, self-worth, and belief in their job performance. A highly satisfied employee feels content, whereas dissatisfaction fosters

negative attitudes (Wartenberg et al., 2023). Diaz-Dumont et al. (2023) described job satisfaction as an emotional response to work shaped by its relevance and the fulfillment of expectations. Montes y Vázquez (n.d.) emphasized its mediating role between environmental conditions and personal or institutional growth. Job satisfaction, a key attitude toward work, predicts professional behavior and provides insight into hidden organizational issues (Wartenberg et al., 2023).

### **2.3.Engagement**

Fernández-Galeote et al. (2021) defined engagement as a cognitive, emotional, and enduring psychological state extending beyond specific tasks or actions. Engagement encompasses energy, dedication, and absorption, forming an active and positive work condition (Estrada & Vargas, 2017; López et al., 2017). Kebede et al. (2022) emphasized engagement as a positive cognitive-affective state, highlighting its link to vigor, resilience, and determination. Workers with high engagement display energy, mental strength, and a willingness to overcome challenges, while low engagement often leads to fatigue (Huttunen et al., 2022; López et al., 2017).

### **2.4.Theoretical Relationship of Variables**

Research in psychology and work management examines the interplay between stress, satisfaction, and engagement. Excessive work stress, caused by overwork, lack of autonomy, role conflicts, and limited resources, negatively impacts employees' well-being. Job satisfaction reflects the extent to which a job meets an employee's expectations, encompassing factors like salary, recognition, career growth, and workplace relationships (Lavy, 2022). Work engagement mediates the relationship between job stress and job satisfaction. Engagement fosters employees' emotional and cognitive connection to their roles, enhancing dedication, productivity, and satisfaction. This mediating role suggests that reducing job stress and increasing engagement can improve employee well-being and organizational outcomes.

## **3. Methodology**

This research was quantitative since we evaluated variables after processing the data to compare hypotheses. (Hernández-Sampieri et al., 2020). Its scope is explanatory since it addresses the causes of social phenomena through variable connections. Primary sources were used to obtain new causal knowledge. Vara-Horna (2015). The research was cross-sectional and non-experimental because the variables were not intentionally altered (Hernández-Sampieri et al., 2020). The universal population was made up of 144 officials of the National Superintendence of Public Registries. In the research to be developed, the survey technique was used and its instrument, the questionnaire, was created to measure the study variables. A Likert-type scale was applied to the 5-alternative questions. The internal consistency analysis, convergent validity, discriminant validity, and cross loadings, as measured by Cronbach's  $\alpha$  and composite reliability, indicator reliability, and AVE, respectively, were used to assess the consistency and reliability of the questionnaire (Hilkenmeier et al., 2020). The statistical study was based on structural equation modeling (SEM) to examine variable connections. In order to determine whether or not work engagement has the ability to reduce stress and increase job satisfaction, we estimated the model's direct and indirect relationships using the structural equation model (SEM). This research estimated model paths, regression coefficients, t values, and statistical

significance using SmartPLS software. Structural equation modeling showed that work engagement mediated workplace stress and satisfaction. Work devotion was favorably connected with job pleasure and adversely correlated with workplace stress. While the effect of job stress on job satisfaction was less pronounced than that of job participation as a mediator, it was nevertheless there.

#### 4. Results

To determine the mediating role of engagement between work stress and job satisfaction in workers of the public institution of Peru. Next, the analysis is carried out using the SEM approach, partial least squares regression method. This second-generation approach called structural equation modeling with partial least squares (PLS-SEM) due to its acceptance in the scientific community in the area of social sciences for having an alternative, robust and more flexible approach to the traditional one. It is carried out with a series of tests to validate the model. To do this, its originality and value will be seen, which will allow us to learn to use the technique and guidelines for the analysis of factors to interpret its results. In this study, the model is assessed by using: 1) Cronbach's  $\alpha$  and composite reliability are markers of internal consistency. 2) Indicator reliability and average variance extracted (AVE) are two measures of convergent validity. 3) The Fornell-Larcker criteria and cross loadings between indicators and latent variables are signs of discriminant validity.

**Table 1:** Analysis of internal consistency

	<b>Cronbach's <math>\alpha</math></b>	<b>rho_A</b>	<b>Composite Reliability</b>	<b>AVE</b>
Engagement	0.893	0.894	0.934	0.824
Stress	0.846	0.854	0.928	0.866
Satisfaction	0.907	0.907	0.941	0.843

The analysis of the measurement model reveals that the constructs of Engagement, Stress and Satisfaction; provides strong evidence of convergent validity and great internal consistency, as supported by the values of Cronbach's Alpha, composite reliability (rho\_a and rho\_c), and Average Variance Extracted (AVE) for each construct. Altogether, Table 1 displays the indicators of internal consistency and convergent validity, underlining the solidity of the measurement model. High Cronbach's Alpha values, along with composite reliabilities and AVEs exceeding recommended thresholds, validate the internal consistency and precision of the constructs within the study. This provides more evidence that the measuring model utilized to assess the connections among Job Satisfaction, Work Stress, and Engagement in the Workplace is well-structured. The dependability and convergent validity of these components provide a strong basis for further investigation of the structural model and interpretation of the theoretical linkages that are being studied.

**Table 2:** Validation of convergence

	<b>Stress</b>	<b>Engagement</b>	<b>Satisfaction</b>
Role Ambiguity	0.939	-0.704	-0.655
Role Conflict	0.922	-0.644	-0.562
Absorption	-0.645	0.897	0.744
Dedication	-0.691	0.915	0.782

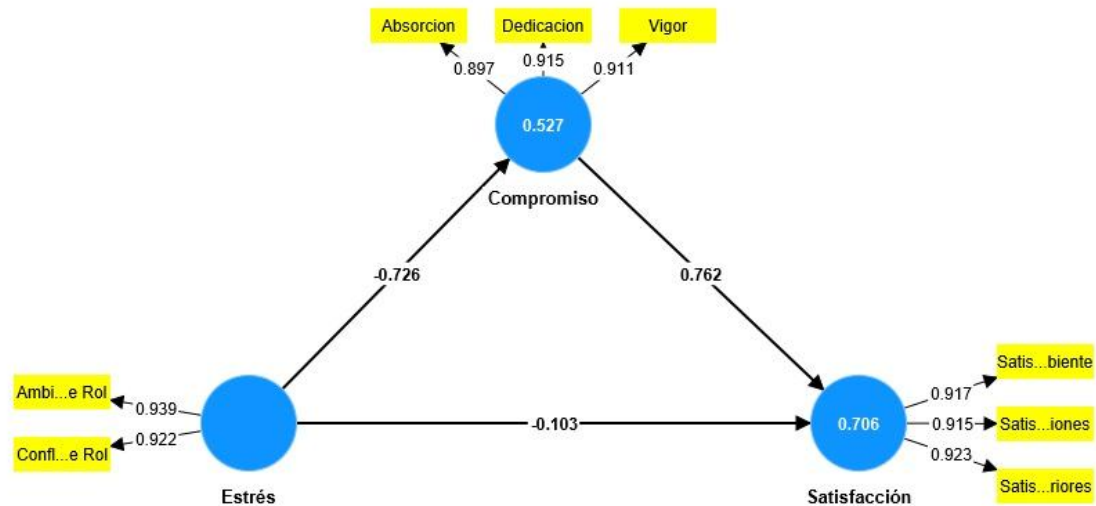
Vigor	-0.639	0.911	0.753
Environment Satisfaction	-0.603	0.748	0.917
Performance Satisfaction	-0.599	0.768	0.915
Superior Satisfaction	-0.605	0.788	0.923

The validation of convergence measures all the questions of each construct with all the constructs to verify which one correlates best, the idea is that it relates more to its own constructs. Table 2 shows the results comparing the latent variables; in each of the factor loadings of the indicators they are higher in their corresponding construct, reaffirming compliance with discriminant validity. Role ambiguity, for its part, registers 0.939 with its construct, -0.704 with engagement and -0.655 with satisfaction; which reflects a better correlation with stress. Role Conflict, shows 0.922 with stress, -0.644 with engagement and -0.562 with satisfaction; affirming best correlate with its construct. Absorption reaches values of 0.897 with engagement, -0.645 with stress and 0.744 with satisfaction; which reflects a better correlation with engagement. Dedication, on the other hand, registers 0.915 with engagement, -0.691 with stress and 0.782 with satisfaction; observing better correlation with its construct. Finally, Vigor shows 0.911 with engagement, -0.639 with stress and 0.753 with satisfaction, reaffirming a better correlation with its construct. Satisfaction with the environment presents 0.917 with its construct, -0.603 with stress and 0.748 with engagement, which demonstrates an excellent correlation with its construct. For its part, satisfaction with benefits shows 0.915 with its construct, -0.599 with stress and 0.768 with engagement; observing better correlation with its construct. Satisfaction with superiors shows 0.923 with its construct, -0.605 with stress and 0.788 with engagement; claiming better correlation with satisfaction.

**Table 3:** Fornell – Larcker criterion

	<b>Engagement</b>	<b>Stress</b>	<b>Satisfaction</b>
Engagement	0.908		
Stress	-0.726	0.931	
Satisfaction	0.837	-0.656	0.918

According to Table 3, which displays the Fornell-Larcker criteria, the construct's variance across its indicators (AVE) is larger than its correlations with the other variables, indicating clear discriminant validity (Avkiran & Ringle, 2018). The divergent validity between the Engagement, Stress, and Job Satisfaction components was evaluated using the approach of Fornell and Larcker. It is crucial to confirm divergent validity in the measurement model, and the results show that each construct shares more variance with its indicators than with the other constructs at large. Specifically, the square root of the AVE for Work Engagement (0.908), Work Stress (0.931), and Job Satisfaction (0.918) is greater than the correlations between these constructs. This is observed in the negative correlations between Stress and Engagement (-0.726) and between Stress and Satisfaction (-0.656), as well as in the positive correlation between Satisfaction and Engagement (0.837). These comparisons clearly demonstrate that each construct is, in fact, distinctive and measures a different phenomenon from the other constructs within the model.



**Figure 1:** Path coefficients (standardized regression coefficients)

There are substantial correlations between work-related stress, engagement, and satisfaction, according to the structural model study. There is a very good correlation between being actively involved in one's work and being satisfied with one's employment (0.762). This result according to Figure 1 is statistically significant with a p-value of less than 5%, suggesting that as work engagement increases, so does job satisfaction to a considerable magnitude. Consistent with previous research, this conclusion highlights the significance of intrinsic motivation as a necessary condition for contentment in one's work. Conversely, a path coefficient of -0.726 indicates a statistically significant negative correlation between job stress and employee engagement. This finding, which is also statistically significant ( $p < 5\%$ ), suggests that employees are less invested in their work when they are under more stress on the job. Managing stress in the workplace successfully is crucial for fostering higher engagement among employees, as this effect of stress on engagement is negative. Additionally, the direct relationship between job stress and job satisfaction, without mediating work engagement, is evidenced by a path coefficient of -0.103. Although this relationship is negative, indicating that an increase in job stress could decrease job satisfaction, the coefficient is relatively low compared to the effects of work engagement on satisfaction. However, it is significant with a p value of less than 5%, suggesting that job stress has a negative direct effect on job satisfaction, although this effect is considerably less pronounced than the effect mediated by work engagement. The mediation analysis indicates an indirect effect of job stress on job satisfaction through work engagement of -0.553, with a p value of less than 5%. This demonstrates not only the relevance of work engagement as a significant mediator in the relationship between job stress and job satisfaction, but also the robustness of this mediating effect. What this means is that stress at work lowers satisfaction with one's employment and has a multiplicative effect on disengagement from one's work. In light of these results, it is clear that organizational methods should be put in place to encourage employees to be actively involved in their work in order to lessen the negative impact that stress has on job satisfaction.

In order to increase employee happiness on the workplace, these findings strongly suggest that companies should implement stress and engagement management strategies.

Clear implications for organizational practice indicate that treatments targeting job stress and engagement may boost job satisfaction via their connected impacts, in addition to directly benefiting these categories.

**Table 4:** Indirect effect

	<b>Original sample (O)</b>	<b>Sample mean (M)</b>	<b>Standard deviation (STDEV)</b>	<b>T statistics ( O/STDEV )</b>	<b>P values</b>
Stress -> Satisfaction	-0.553	-0.553	0.048	11.462	0

According to table 4, our structural model's study of indirect effects shows a strong association between job satisfaction and job stress, with work engagement mediating this relationship. There appears to be a negative correlation between workplace stress and job satisfaction through work engagement, as indicated by the value of -0.553 for the "Original Sample" in the indirect impact. Employees' dissatisfaction with their jobs is a direct result of the chain reaction that begins with rising levels of workplace stress and ends with falling levels of interest in their work. We can have more faith in these results because this indirect impact is statistically significant ( $p < 5\%$ ). Because our results are statistically significant, we may conclude that workplace stress does, in fact, have an indirect influence on job satisfaction via involvement in one's work. From a practical standpoint, this finding emphasizes the significance of work engagement as a pathway via which stress in the workplace diminishes workers' contentment with their jobs.

Because it emphasizes the vital role of work engagement in the dynamic between stress and job satisfaction, this research has substantial implications for businesses and their managers. A more pleasant and productive work environment may be achieved through strategies that enhance work engagement, which in turn buffer the negative effects of work stress on job satisfaction. Interventions could include measures to reduce stressors at work, as well as programs designed to strengthen employee engagement through recognition, career development, and improved working conditions.

## 5. Discussion

This study aimed to examine the role of involvement in mediating the link between stress on the job and job satisfaction among workers of the National Superintendency of Public Registries. In addition to lending credence to preexisting ideas, the results shed light on the context of these processes in Peruvian workplaces. In order to do this, we tested the broad hypothesis that public sector employees in Peru are more likely to report high levels of job satisfaction when engagement acts as a mediator between stress and job satisfaction. Specifically, the model's results were checked for internal consistency using Cronbach's Alpha, composite reliability ( $\rho_a$  and  $\rho_c$ ), and average variance extracted (AVE) for each construct. Then, the discriminant validity of the results was calculated using the Fornell-Larcker criterion, and the indicators and latent variables were determined. Each hypothesis was then evaluated based on this. Job stress showed a significant negative correlation with work engagement, which is in line with theories that stress, especially when chronic and poorly managed, can sap employees' emotional energy and reduce their ability to fully engage in their work (Bakker et al., 2023). This negative link suggests that high levels of stress in the SUNARP could be weakening employees' connection to their roles, negatively affecting their engagement. This coincides with the study carried out by



Mosquera, (2021) where he demonstrates the results of the seven research articles, highlighting that six have reached the same conclusion: stress is negatively correlated with engagement in a work context. Given this, it could be said that in the face of the manifestation or increase of negative stress or stress at work, a lower level of work engagement in employees would be expected. In the study carried out by Garcia, (2021) in young people - adults from the Huaral district, he reached the same results, specifying that it was determined that there is a negative or inverse correlation and at the same time very statistically significant between work stress and engagement. However, in the research carried out by Estrada and Vargas, (2017) on workers in the logistics area of a mass consumption food industrial company; The reality is different because the researcher establishes that the dimensions of work stress and the dimensions of engagement are not negatively related; which implies that stress does not significantly influence engagement (Peña et al., 2022). On the other hand, there was a strong and positive correlation between work engagement and job satisfaction, lending credence to the idea that engagement is an important factor in determining job happiness (Bakker et al., 2023). This result reflects the idea that highly engaged employees tend to experience greater enthusiasm and satisfaction in their roles, since engagement implies a deep psychological connection to the job that can improve the overall perception of the work environment and foster positive feelings toward the job. organization. This is consistent with the authors and research reported by Messarina, (2019) employees of the Lima-based glass and aluminum production and distribution firm report higher levels of job satisfaction and engagement as compared to those who do not. Aghdasi et al. (2011) found that disability support workers in the Jeonbuk region who were part of disability support groups reported higher levels of job satisfaction when their organizations were actively involved. Because there is a correlation between workers' levels of job happiness and their levels of engagement to the firm, a happy workplace can boost organizational engagement (Rachmah et al., 2022). Nevertheless, Estrada and Vargas (2017) discovered that involvement does not positively correlate with job satisfaction among logistics employees of a mass consumption food manufacturing organization. So, involvement has no bearing on contentment in one's work environment.

An essential dynamic is highlighted by the mediating function of engagement between stress and job satisfaction. While stress has a direct negative effect on satisfaction, it also transmits some of this effect through its influence on work engagement. What this means is that stress at work lowers satisfaction with one's employment and has a multiplicative effect on disengagement from one's work. According to the work demands-resources model, this makes sense (Bakker et al., 2023), which argues that job demands (such as stress) can reduce psychological resources (such as engagement), negatively affecting work outcomes (such as satisfaction).

López et al. (2017) found that involvement moderates the relationship between work-related stress and contentment on the job. Similarly, Hasan et al. (2021) found that organizational involvement partially mediates the relationship between job satisfaction and stress in the workplace. Job satisfaction was significantly predicted by involvement with role conflict and role ambiguity (Job Stress), according to the study conducted by Orgambidez-Ramos et al. (2014). Likewise, the link between job satisfaction and role stress was not moderated by engagement. Role stress as a hindering demand would explain the greater direct impact on satisfaction than through engagement. Individuals report higher levels of job satisfaction when they are highly engaged and experience low levels of role stress. In order to increase work happiness at SUNARP, this study's results underscore the significance of stress management strategies and encouraging high levels

of employee involvement. This not only has implications for SUNARP's internal policy and human resource management, furthers our knowledge of these connections within the institutional setting of Peru, adding to the body of work on the subject.

## 6. Conclusion

According to the results obtained, it is established that there is a negative effect between stress and engagement, with a coefficient of -0.726. This result indicates that as work stress increases in SUNARP workers, employees' work engagement decreases. This finding tells us that work stress can erode employees' enthusiasm and emotional connection to their work, thus decreasing their level of engagement. The statistical significance of this relationship underscores the importance of managing stress in the work environment to foster greater engagement. With the results found, the existence of a positive effect between engagement and job satisfaction in SUNARP workers has been determined. With a coefficient of 0.762. This finding indicates that work engagement positively influences the job satisfaction of SUNARP workers. Employees report higher levels of job satisfaction when they are highly engaged in their work and have a good attitude towards their employment. This correlation implies that initiatives aimed at boosting employee engagement at work may have a positive impact on overall job satisfaction inside the company.

The mediating effect study showed that work engagement significantly modifies the connection between job satisfaction and work stress (indirect impact of -0.553,  $p < 5\%$ ). This confirms that work engagement is not only negatively influenced by job stress but also acts as a key mediator affecting job satisfaction. In line with engagement theory, this finding highlights that work engagement can act as a buffer that mitigates the negative effects of job stress on job satisfaction.

In order to increase employee happiness on the workplace, this study's findings support the idea that stress and engagement management are interrelated. According to the results, organizational tactics that aim to lower stress levels and increase involvement in the workplace can greatly affect employees' happiness on the job. As a crucial aspect of human resource management in the Superintendency, creating a work environment that actively supports the well-being and engagement of employees is essential, as work engagement mediates the link between stress and job satisfaction. Registry Systems on a National Scale.

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