




Transformational leadership to improve the intrinsic satisfaction of public workers in northern Peru

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ABSTRACT

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This study analyzes the impact of transformational leadership on intrinsic motivation at work, taking as a Sample workers from the municipalities of three cities in the department of Tumbes, Peru. A non-experimental, cross-sectional design was used, and a sample of 305 employees with an average age of 35 years was studied, comprising 51.8% men and 48.2% women. To evaluate transformational leadership and intrinsic job satisfaction, properly adapted instruments were applied, which demonstrated adequate psychometric properties in terms of validity and reliability. The results obtained through structural equation modeling revealed a moderate and positive relationship between transformational leadership and intrinsic satisfaction. Additionally, regression analysis indicated that transformational leadership can explain up to 50% of the variability in intrinsic job satisfaction. It is concluded that effective leadership not only contributes to increasing workers' internal motivation but also improves their overall psychological well-being. This, in turn, positively impacts their job performance, job satisfaction levels, and the quality of services they provide within their organizations. From a practical perspective, these results highlight the importance of training leaders and supervisors in transformational skills to foster more motivating, healthy, and productive work environments. Implementing leadership development programs can be a key strategy for improving both organizational climate and institutional results.

Contribution/Originality: This study offers a novel approach by focusing on workers in a region of northern Peru, a context that has been little explored in previous research. Using structural equation modeling, we examine how transformational leadership influences intrinsic motivation, providing empirical evidence that can be useful for improving well-being and performance in real work environments.

1. INTRODUCTION

The current environment has led organizations to adapt to new contexts in managing human talent, as many employees are dissatisfied with perceived benefits, the work environment, and organizational policies. Consequently, most public organizations struggle to remain competitive. According to [Campoverde Aguirre et al. \(2022\)](#), the World Economic Forum's global competitiveness index for public entities indicates that Latin America and the Caribbean

have an average score of 56.75%. This is reflected in the services they provide to the community. However, other factors influence this behavior, one of which is transformational leadership style, which directly impacts employee job satisfaction. As [Canal, Ovalles, Sandoval, and Valdez \(2023\)](#) point out, employees who feel satisfied in their work environment exert more effort in their activities and achieve better results for the organization.

Likewise, in the organizational context, leadership holds significant value. Leadership can be defined as the process by which a person has the ability to influence and motivate followers to contribute to the achievement of established objectives and the success of the organizational project ([Castro Solano, 2006](#)). And although there are various theoretical models that explain and classify the different forms of leadership, currently those that emphasize the ethical aspects of the leader, his or her coherence, and interest in caring for the environment have gained greater relevance ([Blanch, Gil, Antino, & Rodríguez-Muñoz, 2016](#); [Busthomi, Zumrah, Supardi, & Juhji, 2023](#)). Thus, spiritual leadership, [Fermiano Fidelis, Soares Formiga, and Fernandes \(2023\)](#), authentic leadership and sustainable leadership ([Mello, 2015](#)). These forms of leadership are compatible with transformational leadership and charismatic leadership, although these typologies focus more on the interaction among people. Thus, transformational leadership and culture are significantly related, since the more the leader demonstrates transformational leadership traits, the more they foster an innovative culture ([Choi, Kim, & Woo, 2025](#)), and this is reflected in the quality of the employees' work ([Kyambade & Namatovu, 2025](#); [Rejas, Ponce, & Fritis, 2021](#)). Therefore, job satisfaction is one of the concepts that is currently being studied in terms of several associated variables, such as organizational climate, burnout syndrome, work-family conflict ([Arias, Ceballos, Román, Maquera, & Sota, 2018](#)), service quality ([Ezcurra-Zavaleta, Ruiz-Montealegre, Saavedra-López, Calle-Ramírez, & Hernandez, 2023](#)), leadership ([Specchia et al., 2021](#)), motivation and work climate ([Basalamah & As'ad, 2021](#)). In public organizations, in addition, it is measured through performance, productivity, absenteeism and turnover ([Pérez Vilar & Azzollini, 2013](#)).

In Europe, studies on transformational leadership have been developed, where [Martinez, Salanova, and Cruz-Ortiz \(2020\)](#) demonstrated that when employees are overloaded, the leaders of the organization, through the commitment they assume, can influence and alleviate that perception. Therefore, the commitment to adopting transformational leadership practices fosters employee job satisfaction ([De Lima Rua & Araújo, 2016](#); [Dimitropoulou, Theodorou, Platis, Manomenidis, & Bellali, 2024](#)). Meanwhile, in Latin America, findings show that managers who do not possess transformational leadership traits are those who do not contribute to the reduction of emotional exhaustion, and rather, increase the level of job dissatisfaction and low personal development ([García-Rivera, Mendoza-Martínez, & Olgún-Tiznado, 2022](#)). Therefore, it is important to consider that presenting adequate emotional regulation will influence adaptation to complex situations and the psychological well-being of individuals ([Calle-Ramírez et al., 2023](#); [Kaya, 2024](#)).

In Peru, as a consequence of recent political and socioeconomic problems, public sector workers' dissatisfaction has increased, which has been reflected in the reactions of trade union groups across different sectors. As [Holguin Morales and Contreras Camarena \(2020\)](#) point out, 48% of employees were moderately dissatisfied with the benefits and conditions perceived by their organization, noting that the more senior the employees, the less satisfied they were. On the other hand, currently, most employees feel motivated and satisfied by factors such as achievement and responsibility, which are not well recognized in Peruvian public entities ([Charaja Incacutipa & Mamani Gamarra, 2014](#)).

In particular, more literature exploring transformational leadership and intrinsic satisfaction among Peruvian workers is needed. This gap is reinforced by the fact that most previous studies have been conducted in different sociocultural contexts. Consequently, there is a need to deepen the analysis of transformational leadership as a key factor in enhancing the internal motivation of public workers, who face unique structural and motivational challenges. This research aims to contribute to understanding the phenomenon through a quantitative and contextualized approach, which allows for generating solid evidence to support organizational interventions based on effective and culturally relevant leadership models.

Therefore, the following research raises the following questions:

To what extent does transformational leadership influence the intrinsic job satisfaction of municipal workers in the department of Tumbes?

What kind of relationship exists between transformational leadership levels and intrinsic job satisfaction levels?

Which dimensions of transformational leadership are most strongly associated with intrinsic job satisfaction?

To what extent does transformational leadership predict variability in intrinsic job satisfaction?

Are there differences in the levels of intrinsic satisfaction among workers with low, medium, and high levels of perceived transformational leadership?

The remainder of the paper is developed as follows: Section 2 presents a review of the literature. Section 3 describes the hypothesis development. Section 4 describes the model, data, empirical results, and discussion. Section 5 concludes the paper.

2. LITERATURE REVIEW

2.1. Transformational Leadership

Transformational leadership began to be conceptualized through the analysis of influential political figures (Blanch et al., 2016; Burns, 1978). This type of leadership implies a dynamic in which both the leader and his followers push each other toward higher levels of motivation and ethics (Burns, 1978). It also motivates team members to set aside their individual interests to focus on shared organizational goals (Bass, 1985). This form of leadership is integrated within positive approaches, along with other currents such as authentic leadership and spiritual leadership. In this sense, transformational leadership plays a key role in encouraging followers to act beyond their own benefits, seeking collective well-being, and fostering innovation, creativity, and organizational transformation (Bass & Avolio, 1990). In addition, it is based on solid principles and values that inspire the right direction, challenge established structures, promote a shared vision, strengthen cooperation, empower teams, and lead by example (Kouzes & Posner, 1993).

Furthermore, transformational leadership is a bidirectional process in which the leader influences followers to adopt new ways of thinking and address new challenges, and in turn seeks to foster innovation at the group and organizational levels (Perilla-Toro & Gómez-Ortiz, 2017). In such sense, leadership involves an interactive process between leaders and followers on the basis of shared objectives and the common good (Prochazka, Gilova, & Vaculik, 2017) so that leaders can shape the emotional competencies of followers towards the achievement of a given goal (Monzani, Hernandez Bark, van Dick, & Peiró, 2015). Certain personality traits, such as extraversion and agreeableness, have also been noted as strong predictors of followers' loyalty to the leader and have the potential to moderate between leadership, followers' performance, and their degree of job satisfaction (Monzani, Ripoll, & Peiró, 2014).

Thus, the quality of the exchanges between the leader and the followers has a medium and long-term effect on the work climate, given the reciprocal nature of their relationships as well as on the organizational culture (Betancur, 2010) therefore, leadership is fundamental in the management of human talent in organizations. Consequently, authentic and charismatic leaders, who exercise transformational forms of leadership, based on ethical principles and the pursuit of the common good, promote healthy ways of working, greater well-being in collaborators and high levels of intrinsic job satisfaction (Blanch et al., 2016). While on the other hand, a dark, narcissistic, and egocentric leadership (Takala, 2010) can be destructive to the organization and foster negative behaviors in collaborators related to organizational cynicism (González-Santa Cruz & Ansoleaga, 2023). In fact, several studies have shown that forms of leadership that promote support, such as transformational leadership, have a negative effect on work stress, and are positively correlated with proactive forms of coping, psychological well-being, quality of life, *engagement* and intrinsic job satisfaction.

2.2. Intrinsic Job Satisfaction

Intrinsic job satisfaction refers to the degree to which a person finds satisfaction and motivation in the job itself, rather than relying primarily on external factors such as pay, benefits, or working conditions (Herzberg, 2008). Workers have innate needs for autonomy, competence, and relatedness, and when these needs are satisfied at work, employees experience greater intrinsic job satisfaction (Deci & Ryan, 1985). In this context, there are job characteristics that can enhance workers' job satisfaction and intrinsic motivation, such as competence, variety, meaningfulness, feedback, and autonomy. The more positive these characteristics are, the greater workers' intrinsic job satisfaction becomes (Hackman & Oldham, 1976). Moreover, when workers are immersed in a challenging task that allows them to express their creativity and feel capable of handling it, they experience a state of flow that provides them with high intrinsic job satisfaction (Amabile, 1998; Hackman & Oldham, 1976).

Transformational leadership under the self-determination theory approach (Deci & Ryan, 1985) can contribute to meeting the psychological needs of employees and foster harmony among followers. These types of leaders inspire and motivate their employees to be more adaptive and proactive (Wang, Tsai, & Tsai, 2014), fostering creativity (Li & Pei, 2012; Wang et al., 2014) and innovation. In addition, they can provide opportunities for learning (Gong, Huang, & Farh, 2009) and personal growth, which can meet workers' needs for competence and autonomy (Khalifeh et al., 2025). Likewise, transformational leaders can foster social connectedness by creating trusting and supportive relationships among team members (Yang, 2009). Because of that influence transformational leadership has on the intrinsic elements of work, it results in positive intrinsic job satisfaction (Ayça, 2019; Mgaiwa, 2023; Negussie & Demissie, 2013; Shah, Parray, & ul Islam, 2023). For these reasons, the study seeks to demonstrate the hypothesis that transformational leadership exercised by the heads of the provincial municipalities of Tumbes, a department located in northern Peru, positively influences the intrinsic job satisfaction of their subordinates.

3. HYPOTHESIS

H₁: Transformational leadership has a positive and significant effect on the intrinsic job satisfaction of municipal workers. It is based on the theory that inspirational, ethical, and development-oriented leadership can stimulate self-fulfillment and a sense of purpose at work.

H_{1.1}: Employees who perceive high levels of transformational leadership also report significantly higher levels of intrinsic job satisfaction compared to those who perceive low levels. It is posited that employees who experience more transformational leadership feel more valued, autonomous, and motivated in their roles, which is reflected in higher levels of intrinsic satisfaction.

H_{1.2}: Transformational leadership predicts at least 49.9% of the variability in intrinsic job satisfaction. The aim is to demonstrate that TL not only correlates with IJS but also serves as a statistically significant predictor, explaining a substantial portion of its variability.

H_{1.3}: There is a positive and significant association between the dimensions of transformational leadership (inspiration, vision, trust, intellectual stimulation, individual consideration) and intrinsic job satisfaction. It allows for the identification of which of these dimensions have a greater influence on the worker's motivational experience.

H_{1.4}: Differences in levels of intrinsic job satisfaction among workers with different levels of perceived transformational leadership are statistically significant. It seeks to confirm that this observational trend has statistical support and is not the result of chance or sample variability.

4. METHODOLOGY

The study method was quantitative because it was based on establishing relationships between the study variables through mathematical formulas (Bordens & Abbott, 2002). It was cross-sectional because it was measured only once in the year 2022, and non-experimental because the study variables were not manipulated, as only the perceptions of the study subjects were collected using measurement instruments (Hernández & Mendoza, 2018).

4.1. Participants

The research involved the participation of 305 workers from the local governments of the provinces of Zarumilla, Tumbes, and Contralmirante Villar, located in the department of Tumbes. Of the total respondents, 158 were male and 146 were female. The participants ranged in age from 18 to 67 years, with an average age of 35 years. The length of service ranged from 1 to 42 years, with an average of 7 years.

4.2. Instruments

To measure transformational leadership, we used part of the short MLQ 5x instrument by Bass and Avolio, adapted and translated by Vega Villa and Zavala Villalón (2004), specifically the one that measures the transformational leadership variable, questions that measure inspirational motivation, intellectual stimulation, idealized attribution and behavioral influence. The questions were presented on a Likert-type scale with 5 alternatives ranging from "Never", "Occasionally", "Sometimes", "Quite a lot" and "Almost always". The reliability of the questionnaire presented a Cronbach's Alpha of 0.912.

To measure intrinsic job satisfaction, questions were taken from the S21/26 - S4/82 instrument (Chiang Vega, Salazar Botello, Martín Rodrigo, & Nuñez Partido, 2011; Chiang Vega & San Martín Neira, 2015) related to factors such as recognition, promotion opportunities, autonomy, and the opportunity to do the things in which one excels. The questions were presented on a Likert-type scale ranging from "Never," "Occasionally," "Sometimes," "Quite a lot," and "Almost always." The reliability of the questionnaire yielded a Cronbach's alpha of 0.906.

4.3. Procedure

Permissions were requested from the authorities of the different provincial municipalities of Tumbes. Subsequently, the cooperation of the workers was solicited, and the purpose of the research was explained to them, along with instructions for completing the questionnaires and assurances of confidentiality regarding their responses. All participants signed the informed consent form, and their data confidentiality was guaranteed. The study received approval from the Ethics Committee of Universidad Señor de Sipán, with Resolution N° 0059/VRI/USS.

4.4. Statistical Analysis

In the initial stage of the analysis, a confirmatory factor analysis (CFA) was conducted to evaluate the structural validity and internal consistency of the measurement instrument. Subsequently, the structural equation model (SEM) was estimated to analyze the relationships between the latent variables. The evaluation of the model fit was based on several commonly accepted indices: the ratio of the chi-square statistic to the degrees of freedom (χ^2/df), with optimal values between 1 and 3; the comparative fit index (CFI), with a recommended value of 0.95 or higher; the root mean square error of approximation (RMSEA), with values less than 0.08; and the standardized root mean square residual (SRMR), also with a value less than 0.08. Together, these indicators provide an adequate assessment of the correspondence between the hypothesized model and the observed data (Bentler, 1990; Schermelleh-Engel, Moosbrugger, & Müller, 2003).

Unlike previous studies that have addressed this relationship through simple correlational analyses or linear regressions, this study incorporated a psychometrically validated measurement model with adequate fit indices, which provides greater statistical robustness and structural validity to the findings. Likewise, the use of SEM allowed us to establish that transformational leadership explains approximately 50% of the variability in intrinsic satisfaction, which has not been sufficiently documented in previous research in the context of the Peruvian public sector.

5. RESULTS

Figure 1 shows that a high percentage of employees (50%) with low transformational leadership (TL) levels also have low intrinsic job satisfaction (IJS) levels. This percentage decreases considerably to 9.77% and 1.20% when

employees with medium and high TL levels are examined, respectively. In contrast, employees with medium and high TL levels tend to exhibit medium or high levels of IJS, with proportions ranging from 42.11% to 53.01%. Notably, 53.01% of employees with high TL levels also display high levels of IJS. These results suggest a positive relationship between transformational leadership quality and intrinsic job satisfaction.

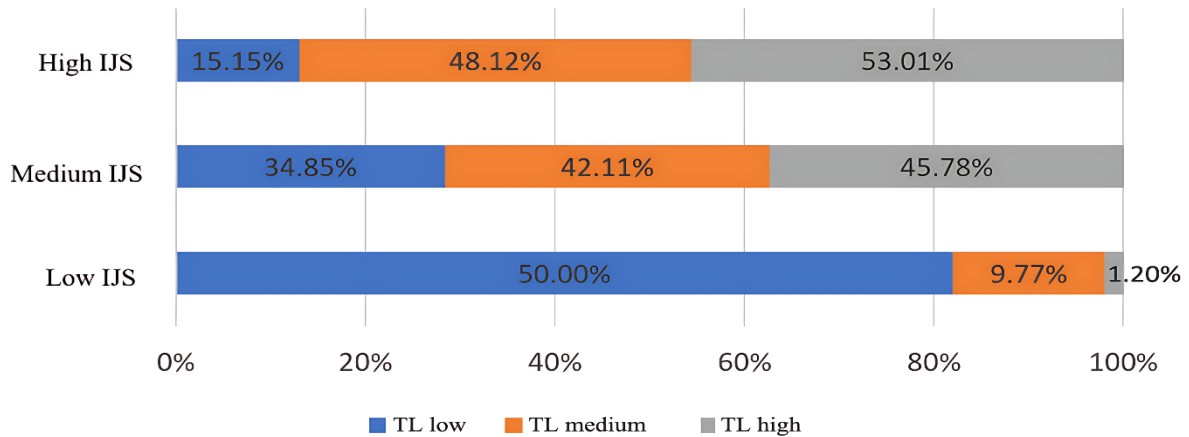


Figure 1. Transformational leadership and job satisfaction.

Note: TL = Transformational leadership, IJS = Intrinsic job satisfaction.

Table 1. Factor loadings, mean, standard deviation, reliability, convergent and discriminant validity.

Variable / Elements	CF	M	SD	CA	CR	Bird	HTMT
Transformational leadership (TL)		3.140	0.791	0.912	0.912	0.539	
I am proud to be associated with him/her.	0.725						
Act in a way that commands my respect	0.776						
Demonstrates a sense of power and confidence.	0.641						
Considers the moral and ethical consequences of the decisions.	0.665						
Emphasizes the importance of having a collective sense of mission.	0.653						
Expresses confidence that objectives will be met	0.815						
Articulates a stimulating vision of the future	0.780						
Suggest new ways to see how to complete the requirements.	0.768						
It leads me to look at problems from many different angles.	0.766						
Intrinsic job satisfaction (IJS)		3.620	0.843	0.906	0.907	0.550	0.701
The opportunities your job offers you to do the things you excel at.	0.624						
The autonomy you have to plan your own work.	0.676						
The unit stimulates me to improve my work.	0.779						
Attention to your suggestions	0.799						
The opportunities your job offers you to do the things you like to do.	0.813						
The satisfaction he derives from his work for himself.	0.776						
Regarding the freedom to choose one's own method of work.	0.750						
The continuing education opportunities offered by the institution.	0.696						

5.1. Estimation of the Measurement Model (AFC)

Table 1 presents the statistical metrics for two key constructs: Transformational Leadership (TL) and Intrinsic Work Satisfaction (IWS). For TL, a mean of 3.140 with a standard deviation (SD) of 0.791 is observed, indicating a moderate degree of variability in participants' responses. Notably, Cronbach's alpha (CA) and composite reliability

(CR) reach values of 0.912, denoting excellent construct reliability. Additionally, the AVE value of 0.539 underscores acceptable convergent validity. The factor loadings (FF) of the TL items range from 0.641 to 0.815, reaffirming their relevance to the TL construct.

For the IJS, the mean is 3.620, and the standard deviation is 0.843. Cronbach's alpha of 0.906 and composite reliability of 0.907 reflect high construct reliability. The AVE value of 0.550 and the HTMT value of 0.701 corroborate convergent and discriminant validity, respectively. The factor loadings of the IJS items range from 0.624 to 0.813, establishing their relevance within the construct.

Table 2. Goodness of fit of the measurement model.

Statistics	Value
Chi-square	215.408
Number of model parameters	35.000
Number of observations	319.000
Degrees of freedom	118.000
P-value	0.000
Chi-Square/df	1.825
RMSEA	0.051
RMSEA low 90% CI	0.040
RMSEA high 90% CI	0.062
SRMR	0.036
CFI	0.968

The goodness-of-fit of the measurement model was assessed using a series of statistical indices, as shown in [Table 2](#). The Chi-square value is 215.408, with 35 model parameters and 319 observations, resulting in 118 degrees of freedom. It is important to note that the p-value associated with the Chi-square is 0.000, which may suggest a poor fit according to traditional tests. However, it is widely recognized that the Chi-square value is sensitive to sample size; therefore, other fit indices were also considered.

The value of the ratio between the chi-square statistic and the degrees of freedom (χ^2/df) was 1.825, which is below the generally accepted threshold of 3, indicating a good model fit. The RMSEA index was estimated at 0.051, with a 90% confidence interval ranging from 0.040 to 0.062, values that are within the range considered acceptable (less than 0.08), suggesting an adequate fit. Likewise, the value obtained for the SRMR was 0.036, meeting the established criterion of being below 0.08, which reinforces the evidence of a good fit. Finally, the comparative fit index (CFI) reached a value of 0.968, exceeding the minimum threshold of 0.95, reaffirming the adequacy of the proposed model.

The fit indices corroborate that the measurement model presents a satisfactory goodness of fit, which validates its applicability in the evaluation of the transformational leadership and intrinsic job satisfaction constructs in the present study.

5.2. Structural Equation Model Estimation and Evaluation

[Figure 2](#) presents the structural equation model that evaluates the relationship between transformational leadership (TL) and intrinsic job satisfaction (IJS). The results indicate that all observed indicators exhibit high and statistically significant standardized factor loadings ($p < 0.001$), with values ranging from 0.641 to 0.815 for the TL construct and from 0.624 to 0.813 for the IJS construct, demonstrating adequate convergent validity of the scales used. Additionally, a positive and significant association was observed between both latent variables ($\beta = 0.706$; $p < 0.001$), confirming that transformational leadership has a direct and meaningful impact on intrinsic job satisfaction. These findings empirically support the proposed hypothesis and highlight the role of leadership as a key factor in promoting intrinsic motivation in work contexts.

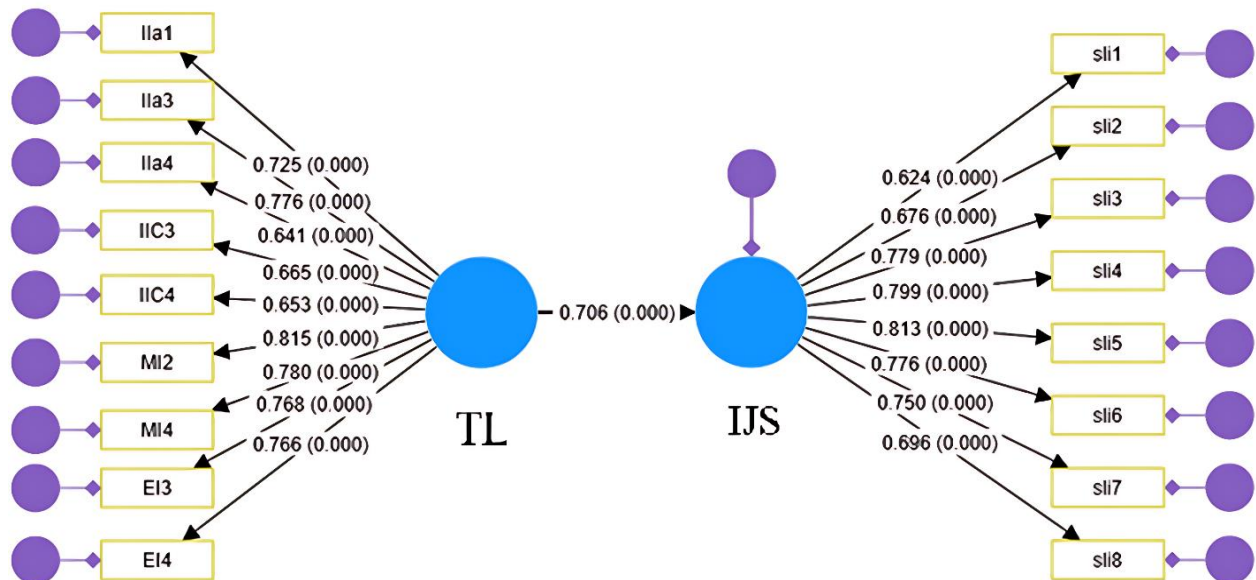


Figure 2. Structural equation model between transformational leadership and intrinsic job satisfaction Structural equation model between transformational leadership and intrinsic job satisfaction.

Note: TL = Transformational leadership, IJS = Intrinsic job satisfaction.

Table 3 addresses the significance and strength of the relationship between transformational leadership (TL) and intrinsic job satisfaction (IJS). The results show that the path value from TL to IJS is 0.786, and the associated p-value is 0.000, indicating that the relationship is statistically significant at a 99.9% confidence level. This result underscores the importance of TL as a significant predictor of IJS.

Furthermore, the coefficient of determination R^2 for IJS is 0.499, suggesting that approximately 50% of the variability in intrinsic job satisfaction can be explained by the variables in the model, including TL. This level of R^2 is considerable and highlights the importance of the model in understanding the factors that influence intrinsic job satisfaction. The results underscore the statistical significance and practical relevance of the relationship between TL and IJS, thus validating the hypothesis that transformational leadership has a positive and significant impact on intrinsic job satisfaction.

Table 3. Structural model between TL and IJS.

Variable	Route	P-values	R ²
TL -> IJS	0.786	0.000	-
IJS	-	-	0.499

6. DISCUSSION

Leadership has been studied from different theoretical approaches, which reveal various typologies and constituent elements. It is possible to distinguish between formal and informal leadership, superordinate and subordinate levels, leaders and followers, vertical and horizontal leadership, authoritarian and democratic leadership (Castro Solano, 2006), as well as various forms of positive leadership that emphasize ethical behavior, social responsibility, the pursuit of the common good, and coherence between organizational values and practices (Sekiguchi & De Cuyper, 2023), such as transformational leadership, authentic leadership, servant leadership, ethical leadership, spiritual leadership, and positive leadership (Blanch et al., 2016). Within these leadership styles, transformational leadership has been studied in various contexts, but particularly in organizational settings. However, in Peru, research on leadership in general, and transformational leadership more specifically, is scarce.

Transformational leadership can be understood as a process that fosters the personal development of members within a group or organization through the promotion of motivational resources and the practice of moral values that inspire followers to transcend their personal interests and focus on the organization's common objectives (Bass, 1985;

Burns, 1978). Thus, it has been reported that transformational leaders succeed in awakening intrinsic work motivation in each of their followers (Fermiano Fidelis et al., 2023). Precisely, the objective of this research is to find evidence supporting this premise, for which 305 workers from the municipalities of three provinces in the department of Tumbes, located in northern Peru, were evaluated.

The results found have shown that, in the first place, the instruments used, the Bass and Avolio 5x short MLQ (Vega Villa & Zavala Villalón, 2004) and the S21/26 - S4/82 (Chiang Vega et al., 2011) to measure transformational leadership and intrinsic job satisfaction, respectively, have adequate levels of validity and reliability. This analysis was necessary because, as mentioned, the variables that are the object of this research have been scarcely addressed in our country. Therefore, there are no validated instruments, especially for populations from provincial cities, which may have very particular psychological characteristics, given that Peru is a multiethnic and multicultural country.

On the other hand, the results have allowed us to contrast the research hypothesis, since the structural equation model applied to transformational leadership and intrinsic job satisfaction has obtained adequate goodness-of-fit indices that indicate both variables are strongly related in a statistically significant way. This result is reinforced by various descriptive and predictive analyses that have been performed, since up to 53.01% of employees with high levels of transformational leadership also have high levels of intrinsic job satisfaction. Furthermore, a subsequent regression analysis found that transformational leadership predicts 49.9% of the variability of intrinsic job satisfaction, indicating that transformational leadership has a positive and significant impact on intrinsic job satisfaction.

These results are consistent with those reported in other studies that have also assessed both variables in samples from Brazil, China, Spain, Ethiopia, India, Portugal, and other countries. (Fermiano Fidelis et al., 2023; Li & Pei, 2012; Negussie & Demissie, 2013; Pérez Vilar & Azzollini, 2013; Shah et al., 2023; Yang, 2009) or with other research that has associated transformational leadership with happiness (Canal et al., 2023) creativity (Gong et al., 2009) engagement (Martinez et al., 2020), self-efficacy (Wang et al., 2014) innovation (Rejas et al., 2021) organizational trust (De Lima Rua & Araújo, 2016; Monzani, Hernandez Bark, et al., 2015) psychological well-being (Perilla-Toro & Gómez-Ortiz, 2017) job security physical and mental health.

The fact that transformational leadership has a measurable impact on intrinsic job satisfaction is of utmost relevance in organizational contexts, since intrinsic motivation, involving self-determination (Deci & Ryan, 1985) and self-efficacy (Wang et al., 2014) of employees, is associated with greater proactivity, involvement, productivity and psychological well-being (Salanova, Martínez, & Llorens, 2005). Hence, through transformational leadership, job satisfaction can be fostered in public institutions in Peru, particularly in municipalities, where previous studies have reported worrying levels of job stress and other psychosocial risk factors (Huamani, Arias, Evangelista, & Calizaya, 2018). Consequently, these findings could facilitate the implementation of workshops and training programs in transformational leadership within organizational contexts, aiming to promote intrinsic job satisfaction among collaborators in public institutions in Peru.

7. CONCLUSIONS

The results of this study confirm that transformational leadership is a determining factor in the intrinsic job satisfaction of municipal workers, explaining approximately 50% of its variability. This empirical evidence reinforces the value of transformational leadership as a strategic tool to promote work environments that are more motivating, autonomous, and aligned with individual and collective purposes within the public sector. Unlike previous research focused on private sectors or international contexts, this study provides contextualized and robust data that expand knowledge in local administrative settings, which are usually little explored. The high reliability of the instruments and the validity of the structural model support the consistency of the findings, underscoring the need to implement leadership development and training policies that foster transformational practices as a means to strengthen psychological well-being, organizational commitment, and the quality of public service. Thus, this study not only

validates a significant relationship between leadership and intrinsic motivation but also raises a concrete intervention agenda for public management in similar contexts.

7.1. Limitations

However, although it has been possible to corroborate the hypothesis put forward, this study has some limitations, such as the impossibility of generalizing the results to other regions of the country, since the sample was not selected by probabilistic methods. In addition, analyses have not been carried out according to certain sociodemographic variables, such as sex. In this regard, several studies have pointed out that men in positions of power tend to have higher levels of leadership than women or more effective forms of leadership than their female peers (Castro Solano, 2006; Mgaiwa, 2023). Although it has also been alluded to that leadership is a phenomenon strongly influenced by gender biases and that both men and women possess qualities to adequately lead their followers, since transformational leadership qualities would be mediated by personality characteristics (Betancur, 2010; Kouzes & Posner, 1993; Monzani, Hernandez Bark, et al., 2015).

7.2. Recommendations

Therefore, it is advisable to conduct more empirical research in the future, in which we can deepen our knowledge of transformational leadership and the associated variables, whether sociodemographic or theoretical, as well as with different methodological approaches. Despite these limitations, the present research makes a highly relevant contribution to the Peruvian context, particularly in the north, where studies on leadership are almost nonexistent, at least with structural equation models and instruments that demonstrate evidence of validity and reliability. Likewise, the main theoretical contribution of this study is to provide consistent evidence that transformational leadership has a measurable impact and significant practical implications on intrinsic job satisfaction.

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Institutional Review Board Statement: The Ethical Committee of the Señor de Sipan University, Peru has granted approval for this study on 5 December 2024 (Ref. No. 0059/VRI/USS).

Transparency: The authors state that the manuscript is honest, truthful, and transparent, that no key aspects of the investigation have been omitted, and that any differences from the study as planned have been clarified. This study followed all writing ethics.

Competing Interests: The authors declare that they have no competing interests.

Authors' Contributions: All authors contributed equally to the conception and design of the study. All authors have read and agreed to the published version of the manuscript.

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