ORIGINAL SCIENTIFIC PAPER

The Mediating Effect of Mindfulness on the Relationship between Authentic Leadership and Self-leadership, Moderated by Gender

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A B S T R A C T

Mindfulness has received increasing attention in leadership research. Yet, its potential to influence the leadership development process remains insufficiently explored. The aim of the study is to evaluate the mediating effect of mindfulness on the relationship between authentic leadership and self-leadership. Given the role of gender in shaping leadership behaviors and experiences, the study also explores the moderating effect of gender on the relationship between authentic leadership and self-leadership. To test the research hypotheses, the study employs partial least squares structural equation modeling (PLS-SEM) in a sample of 208 participants from a developing country, Peru. The key findings are summarized as follows. Authentic leadership has a positive and significant effect on self-leadership and mindfulness, while mindfulness also has a positive and significant effect on self-leadership. Furthermore, mindfulness partially mediates the relationship between authentic leadership and self-leadership. Finally, the moderation role of gender is confirmed, revealing that the relationship between authentic leadership and self-leadership is stronger for women than men. The study not only expands existing knowledge but also offers actionable strategies to foster self-leadership through mindfulness, considering how gender influences the effectiveness of these strategies

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in organizational settings. Future studies could expand the research to include other factors that influence job performance, economic sectors, and other demographic and cultural variables.

Introduction

Due to the constant interest of organizations in identifying elements that help improve the performance of their workers, scholars have increasingly focused on exploring the key elements that drive organizational success and individual performance. In this context, self-leadership emerges as a process through which individuals influence themselves to achieve self-direction and self-motivation, which are essential for their performance (Abolfazli & Nourmand, 2016; Kotze, 2016). One significant driver of self-leadership is authentic leadership, which fosters an environment of trust and empowerment, encouraging individuals to take ownership of their actions and self-regulate their behaviors (Schoofs et al., 2024). However, despite its recognized importance, there is limited research examining how authentic leadership promotes self-leadership, particularly in diverse organizational contexts. This gap highlights the need for further exploration into how authentic leadership can effectively support self-leadership development among employees.

Mindfulness represents a powerful psychological tool that enhances focus, emotional regulation, and overall well-being. Its effects, however, extend beyond the individual, influencing broader organizational dynamics. Mindfulness also plays a crucial role in creating a balanced and positive work culture that fosters an entrepreneurial orientation within organizations, encouraging risk-taking, proactivity, and innovation (Prakash et al., 2023). Similarly, mindfulness contributes to leadership effectiveness by improving leaders' ability to remain present, make thoughtful decisions, and navigate complex challenges in dynamic environments. As highlighted by Lee & Jung (2022), mindfulness and self-leadership are interconnected through self-regulation processes, where individuals focus on self-awareness and reflection to effectively pursue their goals.

Empirical evidence suggests that authentic leadership fosters a supportive and transparent environment, which encourages individuals to engage in mindfulness practices as a means of enhancing their self-

regulation and overall well-being (Zhang et al., 2020). This is because authentic leaders model self-awareness, relational transparency, balanced processing and internalized moral perspectives (Walumbwa et al., 2008), creating a culture that values mindfulness as a tool for personal growth and effective decision-making. Similarly, studies demonstrate that mindfulness has a positive impact on self-leadership (Lee & Jung, 2022; Bazán et al., 2024). Thus, mindfulness emerges as an indirect path through which authentic leadership influences self-leadership, fostering the necessary self-regulation and motivation for individuals to lead themselves effectively. However, no research has yet evaluated this mechanism in detail, particularly the mediating effect of mindfulness.

It is important to note that the participation of women in leadership roles is not only a matter of equity but also positively impacts organizational performance and innovation, leading to increased productivity (Novotney, 2023). Research suggests that women and men often differ in leadership styles, with women tending to adopt more collaborative, inclusive, and transformational approaches, while men are often associated with more task-oriented and directive leadership styles. Similarly, women leaders are often more susceptible to mental and emotional challenges compared to their male counterparts, partly due to the higher emotional demands placed on them. This can lead to increased stress, burnout, and emotional fatigue, as they may feel the weight of both their leadership responsibilities and the expectations placed on them to be empathetic and supportive.

Despite the increasing interest in leadership and its related constructs, gaps remain in understanding how mindfulness and gender interact with authentic and self-leadership, particularly in the Latin American context. The present study addresses these gaps by examining the mediating effect of mindfulness on the relationship between authentic leadership and self-leadership. Given the role of gender in shaping leadership behaviors and experiences, the study also explores the moderating effect of gender on the relationship between authentic leadership and self-leadership. The contribution of the study is detailed as follows. From a theoretical perspective, we build on Bandura's (1986) social cognitive theory, using its concepts to explore the mediating effect of mindfulness in leadership processes. From a practical point of view, the study emphasizes its application in the Peruvian context, which faces unique social and cultural challenges (Avolio et al., 2024). Methodologically, the study uses a higher-order construct to measure authentic leadership, which is composed of self-

awareness, relational transparency, balanced processing, and internalized moral perspective. This technique enables the capture of the complexity and multidimensional nature of authentic leadership, providing a more comprehensive understanding of its impact on self-leadership, in contrast to studies that measure it using first-order constructs (Hendrawan et al., 2025).

Theoretical Framework and Conceptual Development

Theoretical Framework

The study explores the relationship between three core constructs, authentic leadership, self-leadership, and mindfulness, each of which plays a crucial role in influencing individual well-being and organizational success. Authentic leadership, characterized by self-awareness, relational transparency, balanced processing, and an internalized moral perspective, is recognized for creating positive organizational climates that foster employee engagement, motivation, and ethical behavior (Walumbwa et al., 2008). On the other hand, self-leadership focuses on how individuals influence their own behaviors and motivations through self-regulation, ultimately enhancing personal and organizational performance (Kotze, 2016). Mindfulness, defined as the intentional awareness and focus on the present moment, further enhances these processes by promoting emotional regulation, decision-making, and workplace well-being (Prakash et al., 2023; Lee & Jung, 2022). Although each construct has been widely studied individually, its integrated impact, especially in the context of leadership development and organizational performance, remains underexplored. This section will delve deeper into how these constructs interact and contribute to individual and organizational outcomes.

In the pursuit of enhancing organizational performance, three factors have been identified that help to improve work performance: authentic leadership, self-leadership, and mindfulness. These factors are associated with the theory of Bandura (1986), who asserts that individuals are capable of influencing their motivation and behavior. In a study with doctoral students, it became evident that authentic leadership and self-leadership should be explained, as both concepts are closely linked theoretically and practically between self-leadership and authenticity and the organizational setup for authentic leadership (Kringelum et al., 2023). While Kringelum et al. (2023) focus on the connection between authentic leadership and self-

leadership in a doctoral student context, Schoofs et al. (2024) extend this understanding by exploring the link between authentic leadership and self-actualization in a broader organizational context.

In a study with voluntary European participants from a single international company, Schoofs et al. (2024) reported the link between authentic leadership and self-actualization, as well as the authenticity of employees, which helps personal development in work environments. Authentic leadership and mindfulness, when combined, create managers with clearer and more focused thinking, enhancing their managerial competencies that help subordinates improve and grow, as evidenced by a sample of nurse managers. (Shurab et al., 2024), thus requiring further study in other sectors.

It is theoretically assumed that self-leadership and mindfulness have important implications for work engagement, such as higher organizational performance, job satisfaction, and employee engagement (Kotze, 2018). Given that these factors play a significant role in leadership effectiveness, it is crucial to examine how gender shapes the way self-leadership and mindfulness are experienced and practiced in organizational settings. Gender influences leadership behaviors, decision-making, and emotional regulation, which in turn affects how individuals apply self-leadership strategies and engage with mindfulness. Men and women often face different expectations and challenges in the workplace, which can impact their ability to exercise self-leadership and engage in mindfulness practices. In this context, the study of the impact of gender becomes particularly relevant, given the increase of women in leadership positions, which is favorable to business growth (Prakash et al., 2023). However, women often must face difficulties to reach managerial positions (Brabazon, 2014). A very small number of women occupy top management in large companies (Antonijević et al., 2022). Therefore, further studies need to be encouraged by considering possible elements such as geographical distribution (Albaddawi, 2024).

Relationships Between Constructs and Hypotheses

Authentic Leadership and Self-leadership

Current approaches to authentic leadership are multivariate and complex, including the perspective of self-formation oriented in the interaction with others and the reciprocity involved in participating in

management processes. Both perspectives relate to the process of self-leadership. The literature has not identified the relationship between authentic leadership and self-leadership, but has found in a study in the public sector in South Africa, positive evidence of self-leadership as an antecedent to authentic leadership, in its four components, in which people with higher levels of self-leadership influence self-awareness, with a better understanding of their strengths and weaknesses, as well as the impact of their behavior, in relational transparency they foster trust by sharing their true feelings, thoughts and emotions, in balanced processing they analyze data objectively before making a decision and solicit opinions from others that challenge their assumptions, finally in internalized moral perspective, they are guided by their own internalized moral standards and values rather than group, organizational and societal pressure, leading to behavior consistent with their internalized values (Kotze, 2016).

We highlight new experiential perspectives on self-leadership as a basis for exercising leadership and essential for the creation of personal authenticity (Kringelum et al., 2023). Considering that every employee has the potential to make a difference regardless of his or her performance, self-leadership also produces positive results for both teams and organizations. It is also gaining more attention along with emerging concepts such as authentic, service, emotional, participative, and shared leadership (Kim et al., 2024). Further studies are needed considering larger, more representative, and authenticity-related samples in different cultures (Schoofs et al., 2024). The emergence of self-leadership and authentic leadership in different contexts, the leadership capabilities required, and the duality and dilemmas inherent in such emergences are important questions for future research; therefore, Hypothesis 1 was formulated as follows:

H1. Authentic leadership and self-leadership have a positive and significant relationship.

Authentic Leadership and Mindfulness

The literature tells us that authentic leadership is connected to mindfulness as both emphasize self-awareness, greater self-awareness of thoughts, emotions, and values (Tan et al., 2023). Authentic leadership is highly relational in nature and relies equally on the individual's inner capabilities, awareness of those capabilities, which helps leaders make deliberate decisions with the organization's resources (Kringelum et al.,

2023). Likewise, there is a theoretical connection between mindfulness and authentic leadership, because both are connected to greater self-awareness of thoughts, emotions, and values (Shurab et al., 2024).

In a study in a hospital in Egypt, it was observed in nurse managers that by increasing their authentic leadership and mindfulness they had clearer and more focused thinking, with a growth mindset that helps subordinates to improve their managerial competencies, so it is necessary to increase the sample of female managers in various leadership positions (Shurab et al., 2024). Therefore, Hypothesis 2 was formulated as follows:

> **H2.** Authentic leadership and mindfulness have a positive and meaningful relationship.

Mindfulness and Self-leadership

A leader who is aware of his or her thoughts, emotions, and behaviors is considered to have high mindfulness and self-leadership capabilities. Likewise, mindfulness plays a fundamental role in the development and strengthening of individual leadership (Chen & Zhang, 2022). Also, several researchers point out that mindfulness favors the growth of self-leadership in different contextual settings, such as the educational process or the workplace. Mindfulness enhances self-leadership by increasing self-awareness, helping people to identify their strengths and areas for improvement, and facilitating the management of personal goals. It also facilitates the development of emotional regulation skills, helps individuals maintain motivation in the face of challenges, and strengthens their self-leadership. In that sense, mindfulness acts as a psychological regulation mechanism that promotes self-leadership in managers.

Mindfulness promotes authenticity by allowing self-discovery and self-awareness, which leads to goal setting that is more consistent with one's personality (Shurab et al., 2024). In addition, the literature has shown that there is a positive relationship between mindfulness as a trait of leaders and self-leadership (Tan et al., 2023). In a study in South Korea with women undergraduate arts majors, it was found that mindfulness of the moment, which is described as mindful, intentional, and nonjudgmental attention, was the factor associated with improving self-leadership. Likewise, there is scarce research on the integration of mindfulness and self-leadership constructs (Lee and Jung, 2022). This reasoning allows us to pose the following hypothesis:

H3. Mindfulness and self-leadership have a positive and significant relationship.

Mediating Effect of Mindfulness on Authentic Leadership and Self-leadership.

Mindfulness and self-leadership are related through people's individual self-regulation to achieve their goals. It is also evident that empathy mediates the relationship between mindfulness and self-leadership, which indicates that mindfulness and empathy could produce positive effects in promoting self-leadership (Lee & Jung, 2022). Mindfulness-based interventions and authentic leadership are connected in that both emphasize greater self-awareness of thoughts, emotions, and values, generating greater autonomy for the leader to transform the organizational culture with improvements in emotional intelligence, managerial competencies, and a minimization of psychological and physical deterioration due to stress (Shurab et al., 2024).

According to Rupprecht et al. (2019), there is a limited amount of research focused on the development of skills such as self-observation, self-regulation, and emotional regulation, which are positively influenced by mindfulness and contribute to the strengthening of both self-leadership and leadership. However, it has not yet been explored how these three variables interact with each other, especially in the context of Latin America, so the following hypothesis is generated.

H4. Mindfulness mediates the relationship between authentic leadership and self-leadership.

Gender Relationship between Authentic Leadership and Self-leadership

According to the literature, when managers perceive that authentic leaders supervise them, they encounter fewer professional barriers, such as gender discrimination, unequal opportunities, and biased organizational practices. Authentic leadership creates a supportive and transparent environment that fosters trust, fairness, and inclusivity, which significantly enhances occupational well-being. This effect appears to be more pronounced for women in leadership positions, as they often face additional challenges in male-dominated environments (Zhao & Wang, 2025). Research has indicated that authentic leadership can help reduce these

challenges, promoting a more equitable work atmosphere that benefits women and men alike.

Interestingly, some studies suggest that there are no substantial distinctions in relationship-oriented leadership styles between men and women. Similarly, gender seems to have minimal impact on task-focused leadership styles, with both men and women demonstrating similar approaches to goal achievement and decision-making (Abolfazli & Nourmand, 2016). However, the impact of leadership style is not uniform across all employees.

The scientific literature has consistently shown that leadership style and gender play significant roles in shaping subordinates' career and work outcomes. Beyond authentic leadership, gender influences workplace well-being, with women often benefiting more from leadership practices that promote empowerment and trust (Srivastava & Dixit, 2024). This suggests that women may derive greater benefits from authentic leadership because it directly addresses the gendered challenges they face in organizational settings, such as bias or unequal opportunities.

Figure 1: Theoretical model
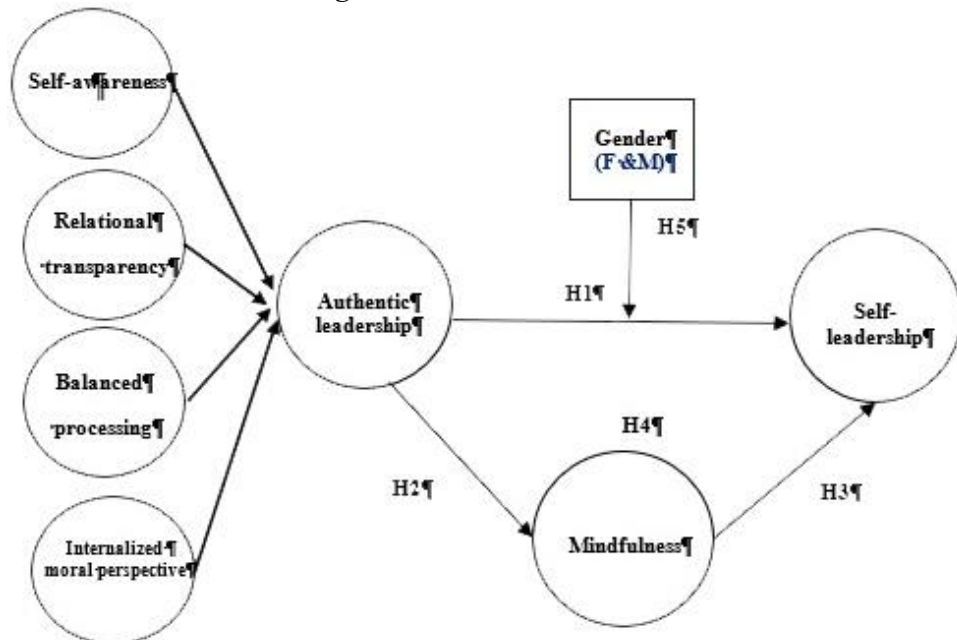
Note. Single-headed arrows represent hypothetical directional trajectories.
Source: Prepared by the author

Thus, gender moderates the relationship between authentic leadership and self-leadership, with women experiencing a stronger positive effect. This can be attributed to the fact that authentic leadership provides a safe space for women to overcome barriers, fostering the self-regulation, motivation, and confidence necessary for effective self-leadership. In environments where authentic leadership is present, women are likely to feel more empowered to take ownership of their actions and decisions, which enhances their ability to lead themselves and achieve personal and professional growth. Based on this reasoning, the following hypothesis is proposed:

H5. Gender moderates the relationship between authentic leadership and self-leadership.

Finally, Figure 1 shows the research hypotheses.

Methodology

The research instrument consisted of a questionnaire of closed questions with 44 items that reflect the perceptions of individuals on the research variables. To measure self-leadership, the questionnaire proposed by Houghton et al. (2012), which consists of nine questions, was considered. Regarding mindfulness, the questionnaire developed by Brown and Ryan (2003) was selected, which consists of 15 questions. In the case of authentic leadership, the Walumbwa et al. (2008) questionnaire was used, which includes four dimensions: self-awareness (5), relational transparency (5), balanced processing (5) and internalized moral perspective (5). All items were measured on a five-level Likert scale (1 = strongly disagree, 5 = strongly agree).

Since the instrument was originally written in English, the double translation technique was applied to ensure the accuracy of the content in the Spanish version. After applying the double translation technique, four professors-two from management, one from research methodology and one from language-were invited to review the translated version. To verify content validity, each expert evaluated the relevance and clarity of each item. Agreement among reviewers was determined through a series of structured discussions, where experts shared their perspectives and reached consensus on the relevance and clarity of each item. Their suggestions were incorporated to resolve possible problems of ambiguity. After the expert

review, a pilot test was conducted with 15 people. After the pilot test, all feedback was shared with the experts for further adjustments. The individuals who participated in the pilot test were not part of the final study sample.

Data Collection

Data collection was conducted between October and December 2024. The authors sought ethical approval from the Research Ethics Committee for Social Sciences, Humanities, and the Arts of the Pontifical Catholic University of Peru to ensure compliance with ethical standards, including the Declaration of Helsinki. To meet the inclusion criteria, participants should be 18 years of age or older and employed for at least one year. The questionnaire was designed using Google Forms survey management software. It should be noted that each participant was informed about the confidentiality of their answers and data handling. Once the valid responses (n=208) were collected, they were coded according to the level of the 5-point Likert scale (1 = "strongly disagree", 5 = "strongly agree"). Participants were selected using purposive sampling, where individuals were chosen based on specific predefined criteria, such as age and length of employment.

Table 1: Sociodemographic characteristics of the sample

Characteristic	Frequency	Percentage
Gender		
Female	102	49%
Male	106	51%
Age		
24-35	98	47%
36-45	82	39%
46-55	20	10%
over 55	8	4%
Position in the organization		
Senior management	20	10%
Mid-level management/ Supervisor	123	59%
Non-managerial (technical / professional)	65	31%
Sector of the organization		
Commercial	50	24%
Manufacturing	36	17%

Characteristic	Frequency	Percentage
Services	122	59%
Type of organization		
Private	194	93%
Public	14	7%
Total	208	100%

Source: Authors

Table 1 presents the sociodemographic characteristics of the sample used in the study. The sample consists of 208 participants, with 49% female and 51% male. In terms of age, many participants fall within the 24-35 age range (47%), followed by 39% in the 36-45 age range, 10% in the 46-55 age range, and 4% over the age of 55. Regarding organizational position, the largest group consists of mid-level managers or supervisors (59%), followed by non-managerial technical/professional staff (31%), and senior management (10%). The participants come from various sectors, with the most significant proportion working in services (59%), followed by commercial (24%) and manufacturing sectors (17%). The sample is predominantly from private organizations (93%), with only 7% representing public organizations.

Data Analysis

Data analysis included the application of partial least squares structural equation modeling (PLS-SEM), due to its ability to successfully detect significant relationships when sample size is limited and its ability to converge more effectively when using formative constructs, compared to the covariance-based method (CB-SEM) (Hair et al., 2022). Authentic leadership was represented as a reflective-formative construct, in response to the growing criticism toward reflective second-order constructs (Mikulic, 2022). In contrast, self-leadership and mindfulness were represented as reflective constructs.

The data analysis proceeded in a structured sequence. We started with the evaluation of the reflective measurement model, including checks for indicator reliability, internal consistency, and both convergent and discriminant validity. Next, we assessed the formative second-order construct of authentic leadership and its four indicators, evaluating significance and relevance of outer weights, and VIF values. For the validation and estimation of authentic leadership, the two-stage disjoint

approach was employed (Sarstedt et al., 2019). Following this, we evaluated the structural model using 10,000 bootstrapping samples. We began by testing the direct effects, followed by the mediating effect of mindfulness. Finally, we tested the moderation of gender, implementing an interaction term and applying a two-step approach to assess its significance (Hair et al., 2022). During data analysis, the statistical package SmartPLS 4 was used.

Results

Evaluation of the Measurement Model

The first stage of the PLS-SEM application involved the evaluation of the measurement model. With respect to the reflective constructs, indicator reliability, internal consistency reliability, convergent validity and discriminant validity were evaluated. The results of the reliability of the indicators can be found in Annex 1. Model 1 included all the survey indicators. However, six indicators obtained external loadings below 0.4 and had to be eliminated. Particularly, the following indicators were excluded: SA5, IMP2, IMP5, BP2, BP4, and RT4. In contrast, we chose to keep those indicators that obtained external loadings between 0.4 and 0.7 due to their content validity (Hair et al., 2022). Once the indicators below 0.4 were eliminated, Model 2 showed acceptable levels of reliability.

Table 2: Reliability of internal consistency and convergent validity

Construct	Model 1			Model 2		
	α	FC	VME	α	FC	VME
(SL) Self-leadership	0.883	0.906	0.519	0.883	0.906	0.519
(MI) Mindfulness	0.941	0.949	0.556	0.941	0.949	0.556
(SA) Self-awareness	0.690	0.804	0.523	0.824	0.883	0.653
(IMP) Internalized moral perspective	0.593	0.730	0.430	0.801	0.883	0.716
(BP) Balanced processing	0.641	0.678	0.387	0.746	0.854	0.661
(RT) Relational transparency	0.768	0.842	0.535	0.817	0.879	0.647

Source: Authors

The internal consistency reliability was evaluated based on Cronbach's alpha (α) and composite reliability (CR). In both cases (see Table 2), the results of model 2 revealed values above 0.7 and allowed us to conclude that

the measurement model presents adequate levels of reliability. Regarding convergent validity, the average variance extracted (AVE) was calculated. The results revealed AVE values above 0.5 and allowed verifying the convergent validity of the measurement model (Hair et al., 2022).

Discriminant validity was evaluated based on the Fornell and Larcker (1981) criterion and the heterotrait-monotrait ratio of correlations (HTMT) criterion, proposed by Henseler et al. (2015). Table 3 shows the results of the application of both criteria. With respect to the Fornell and Larcker (1981) criterion, the values on the diagonal (square root of the AVE) were greater than the values below the diagonal (correlation between constructs) for each case. With respect to the HTMT criterion, the values above the diagonal (HTMT values) were less than 0.85 (Hair et al., 2022). In both cases, the results allowed testing the discriminant validity of the measurement model.

Table 3: Discriminant validity

Construct	SL	MI	SA	IMP	BP	RT
SL	0.720	0.446	0.461	0.251	0.249	0.398
MI	0.425	0.746	0.522	0.293	0.309	0.433
SA	0.401	0.470	0.808	0.716	0.561	0.847
IMP	0.211	0.257	0.585	0.846	0.507	0.758
BP	0.211	0.260	0.441	0.399	0.813	0.521
RT	0.340	0.383	0.691	0.618	0.406	0.804

Authentic leadership was represented as a second-order formative construct, whose indicators were represented by its four dimensions: self-awareness, internalized moral perspective, balanced processing, and relational transparency. The evaluation of such formative construct involved the level of collinearity, as well as the significance and relevance of the indicators. The level of collinearity was measured from the variance inflation factor (VIF). According to Hair et al. (2022), the VIF values should be less than 3. The results reported in Table 4 indicate that the formative construct indicators do not present critical collinearity problems. To calculate the significance and relevance of the indicators, a bootstrapping of 10,000 replicates was conducted (Becker et al., 2023). According to the results, all dimensions of authentic leadership were found to be positive and significant.

Table 4: Collinearity, significance and relevance

Indicator	VIF	Coefficient	Standard deviation	p-value	CI 95%
Self-awareness	2.159	0.948	0.034	***	[0.865; 0.993]
Internalized moral perspective	1.793	0.498	0.137	***	[0.190; 0.728]
Balanced processing	1.301	0.508	0.123	***	[0.554; 0.918]
Relational transparency	2.228	0.781	0.093	***	[0.004; 0.609]

Note. ***p-value < 0.001.
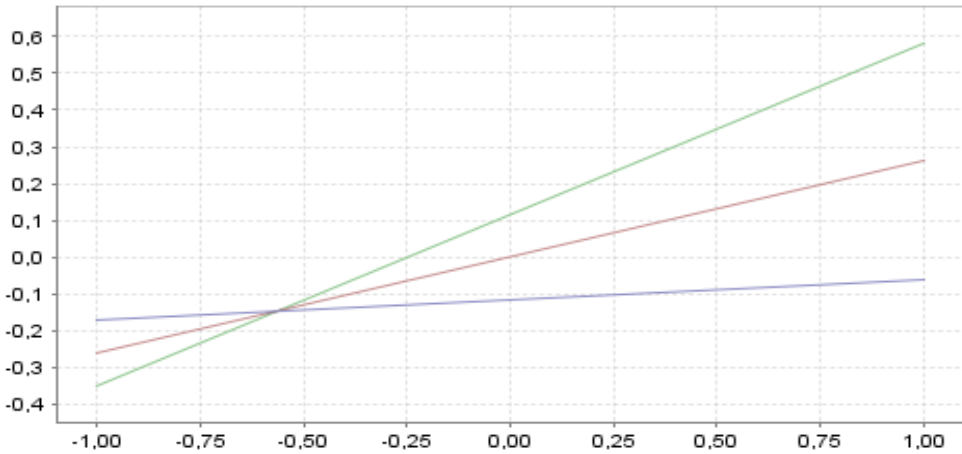
Source: Authors

Estimation of the Structural Model

According to Table 5, the relationship between authentic leadership and self-leadership is positive and significant (β=0.301, p-value=0.045). Second, the relationship between authentic leadership and mindfulness is positive and significant (β=0.491, p-value<0.001). Third, the relationship between mindfulness and self-leadership is positive and significant (β=0.270, p-value=0.033). Fourth, mediation analysis revealed that mindfulness mediates the relationship between authentic leadership and self-leadership (β=0.129, p-value=0.031). Lastly, moderation analysis confirmed that gender moderates the relationship between authentic leadership and self-leadership (p-value=0.042). In particular, the results revealed that the relationship between self-leadership and authentic leadership is higher among women than men (see Figure 2). Thus, the results confirmed all the research hypotheses.

Table 5: Results of bootstrapping (10,000 repetitions)

Relationship	Path coefficient	Standard deviation	T statistic	p-value	CI 95%
AL → SL	0.301	0.138	2.003	0.045	[0.057; 0.590]
AL → MI	0.491	0.077	6.255	***	[0.335; 0.638]
MI → SL	0.270	0.137	2.137	0.033	[-0.022; 0.509]
AL → MI → SL	0.129	0.065	2.154	0.031	[-0.012; 0.248]
AL (Gender) → SL	0.202	0.101	2.035	0.042	[0.005; 0.394]

Note. ***p-value < 0.001.

Figure 2: Simple slope analysis

Note. X-axis: authentic leadership; Y-axis: self-leadership; green line: women, blue line: men, red line: no moderation.

Source: Authors

The last step corresponded to the evaluation of the explanatory and predictive power of the structural model. The findings are reported in Table 6. First, the R² value of self-leadership (0.239) is similar to those values reported in studies related to the research topic (Conejero-Pérez et al., 2022; Shahzad et al., 2020), indicating that the model has acceptable explanatory power. Secondly, the predictive power was evaluated from the Q² index, as well as the RMSE and MAE values. Concerning the Q² index, the results showed positive values. In addition, all RMSE and MAE values of PLS were found to be below LM, respectively. Therefore, both criteria lead to the conclusion that the predictive power of the model is adequate.

Table 6: Predictive power

Indicator		PLS		LM	
	Q²	RMSE	MAE	RMSE	MAE
SL1	0.044	0.762	0.473	0.768	0.476
SL2	0.080	0.838	0.572	0.851	0.584
SL3	0.079	0.778	0.554	0.787	0.564
SL4	0.097	0.911	0.680	0.920	0.694
SL5	0.025	0.947	0.712	0.962	0.726
SL6	0.057	0.987	0.792	0.998	0.807

Indicator	Q²	PLS		LM	
		RMSE	MAE	RMSE	MAE
SL7	0.020	1.066	0.824	1.083	0.833
SL8	0.099	0.920	0.677	0.929	0.685
SL9	0.079	0.890	0.639	0.896	0.639

Source: Authors

Discussion

The purpose of this study was to analyze the elements that favor the optimization of work performance and to examine how these elements impact such performance. A model was developed and validated using a representative sample across different industries. Regarding the relationship between authentic leadership and self-leadership, the results are consistent with those found in prior literature. The significant relationship between authentic leadership and self-leadership may be explained by the way authentic leaders foster trust, transparency, and empowerment in their followers (Kringelum et al., 2023). Employees influenced by authentic leadership are more likely to engage in self-regulation, set personal goals, and reflect on their behaviors, which directly enhances self-leadership and performance. Therefore, these findings not only confirm existing research but also address a significant gap by highlighting how authentic leadership influences self-leadership, a relationship that was less explored in the literature, which primarily focused on the impact of self-leadership on authentic leadership components (Kotze, 2016). In the Latin American context, where organizations often face hierarchical structures and more traditional leadership models, the impact of authentic leadership could be even more pronounced, as it challenges and reshapes the leadership dynamic, offering employees greater autonomy and involvement in decision-making.

The validation of the relationship between authentic leadership and mindfulness also aligns with the research of Shurab et al. (2024), which was conducted in a different cultural context and reinforces that leaders who possess greater mindfulness capabilities tend to enhance their managerial competencies. Our findings could be attributed to the fact that mindfulness allows individuals to remain calm and focused in high-pressure situations, promoting better decision-making and emotional regulation, which in turn improves leadership effectiveness (Prinsloo & Jooste, 2022). The findings

related to the influence of mindfulness on self-leadership are similarly supported by other scholars (Chen & Zhang, 2022; Lee & Jung, 2022). Mindfulness cultivates an individual's ability to stay present and aware, which is crucial for self-leadership as it encourages self-reflection, self-regulation, and increased motivation. These results also respond to the identified need for more research on the role of mindfulness in the workplace, especially given the scarcity of studies addressing its impact on employee performance (Lee & Jung, 2022). Considering the rapid growth of mindfulness practices in organizational settings, particularly in countries like the U.S. and Europe, Latin America could benefit from integrating mindfulness techniques into leadership development programs, potentially leading to improved organizational outcomes.

Furthermore, the mediating effect of mindfulness on the relationship between authentic leadership and self-leadership, as confirmed by the results, validates the hypothesis and reinforces the accepted direction and influence between these constructs. This finding is particularly significant because it highlights that authentic leadership not only directly affects self-leadership but that mindfulness plays a crucial role in enhancing this relationship, providing a mechanism through which authentic leadership can be even more effective. This supports the need for further research in workplace settings, as suggested by Rupprecht et al. (2019) and Kotze (2018). Given the growing interest in mindfulness and self-leadership, more empirical studies are needed to examine how these elements interact across different cultural and organizational contexts, especially in regions like Latin America, where organizational structures and leadership practices can be quite different from those in Western settings.

Finally, the results revealed that the relationship between authentic leadership and self-leadership is higher among women, reinforcing the well-established notion that leadership style and gender have significant effects on job performance. The study helps clarify how authentic leadership can influence self-leadership behaviors in both men and women, with a stronger positive impact for women. Authentic leadership promotes a supportive environment that encourages individuals to take ownership of their actions, set personal goals, and engage in self-regulation. For women, who often face additional challenges in leadership roles, this type of leadership provides the autonomy and confidence needed to overcome barriers, leading to greater self-motivation and personal growth. In contrast, while men also benefit from authentic leadership, the unique challenges women encounter

in organizational settings make them more likely to experience a pronounced impact on their self-leadership abilities, allowing them to lead themselves more effectively and proactively within their roles. These findings are consistent with Srivastava and Dixit (2024), who suggest that authentic leadership not only improves job performance but also enhances workplace well-being by addressing the gender-based challenges women face in leadership positions. In the Latin American context, where gender inequality remains prevalent in many sectors, the impact of authentic leadership on women leaders could be especially critical in breaking down organizational barriers and promoting greater gender equity in leadership roles.

Conclusion

The research offers practical implications by highlighting the importance of managers actively promoting the application in their organizations of these variables that contribute to the improvement of work performance. Organizations should empower their employees through full attention to the necessary behavioral changes as part of their daily operations to obtain dual benefit, i.e., increased employee well-being and improved firm performance (Prakash et al., 2023). By promoting an environment that encourages authentic leadership and mindfulness, organizations can improve self-leadership among employees, ultimately leading to enhanced job satisfaction and performance.

The presence of more women in leadership roles will contribute to business growth, so organizations need to recruit and train such talent for the benefit of the organization. We suggest that women play a critical role in improving business activities in an organization, especially considering the unique challenges they face in leadership roles. This highlights the importance of promoting gender-inclusive leadership practices to enhance overall organizational effectiveness. This study has certain limitations, given that the research design, data selection, and inferential methods involved unavoidable compromises. In addition, the use of retrospective measures based on managers' perceptions was identified as a possible source of response bias. However, this is a common methodological weakness in research addressing similar issues.

The study achieves its objectives by providing a more complete understanding of the relationship between constructs that have been

mentioned by other authors but have not been comprehensively validated. In doing so, it contributes to the literature by filling a gap in the understanding of how authentic leadership, mindfulness, and self-leadership interact to improve employee performance, with particular emphasis on the moderating role of gender. Therefore, this research provides results on three constructs that influence employee performance and the effect of gender that may affect work efficiency and well-being in the workplace (Albaddawi, 2024; Srivastava & Dixit, 2024). Finally, it is recommended that the model be applied in larger business sectors and other cultural settings. Further studies should continue to incorporate gender as a critical variable, given its strong influence on organizational satisfaction and work efficiency, and the current limitations in the literature surrounding gender in diverse business contexts.

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