
VALIDATION OF AN ORGANIZATIONAL SILENCE CLIMATE PERCEPTION SCALE

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SUMMARY

Organizational silence climate refers to the shared belief that speaking up in the workplace is inconvenient or futile, which negatively affects organizational effectiveness. This study aims to validate a Spanish version of the Organizational Silence Climate Perception Scale. Using exploratory factor analysis (n = 207) and confirmatory factor analysis (n = 130) conducted on two independent samples, the three-factor model demonstrated adequate reliability and validity, supported by satisfactory fit indices and internal consistency. These findings support the use of the scale to assess organizational silence climate and related communication attitudes in Spanish-speaking workplaces.

Introduction



Organizational climate plays a critical role in shaping workplace dynamics, influencing employee commitment and

performance (Knoll and Van Dick, 2013; Morrison and Milliken, 2000; Morrison, 2023). Within this framework, organizational silence climate refers to the shared belief that speaking up is dangerous or futile, which reduces communication openness and hinders problem

detection, efficiency, and innovation (Morrison and Milliken, 2000; Vakola and Bouradas, 2005).

This phenomenon is particularly relevant because it constrains the flow of information necessary for organizational learning and adaptation. In this

KEYWORDS / Human Resource Management / Organizational Climate / Organizational Silence /

Received: 03/05/2026. Modified: 04/13/2026. Accepted: 04/15/2026.

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context, a silence climate emerges from factors such as fear of retaliation, lack of managerial support, or abusive leadership (Kiewitz *et al.*, 2016; Lam and Xu, 2019; Vakola and Bouradas, 2005). Vakola and Bouradas (2005) conceptualize silence climate through three dimensions: top management attitudes toward silence, supervisors' attitudes toward silence, and organizational communication opportunities. However, despite its relevance, empirical applications of this scale in Spanish-speaking contexts remain limited, restricting the development of comparative and context-sensitive research.

This study aims to validate a Spanish version of the Organizational Silence Climate Perception Scale, by assessing its reliability, convergent validity, and discriminant validity, thereby contributing to the availability of a robust measurement instrument for the study of communication dynamics and silence climates in Spanish-speaking organizations.

Theoretical Framework

The silence climate is a group-level social phenomenon in which employees hold shared beliefs about the risks or futility of speaking up (Vakola and Bouradas, 2005; Brinsfield, 2009; Knoll and Van Dick, 2013; Milliken *et al.*, 2003; Morrison and Milliken, 2000; Morrison, 2023). In this context, these shared perceptions explain variations in employees' silence behavior across organizations (Knoll *et al.*, 2021; Prouska and Psychogios, 2018).

Silence climates arise from organizational dynamics that foster them (Brinsfield, 2013; Morrison and Milliken, 2000; Morrison, 2023). Specifically, factors such as ambivalent identification stemming from high organizational prestige but low support (Mignonac *et al.*, 2018), fear of disrupting group harmony (Knoll and Redman, 2016), and leadership-related conditions, including abusive supervision (Lam and Xu, 2019; Cortina and Magley, 2003; Armijos *et al.*, 2025), influence silence behavior (Kiewitz *et al.*, 2016; Vakola and Bouradas, 2005). Organizational silence involves the intentional withholding of ideas, information, or opinions, particularly from those with authority to implement change (Dyne *et al.*, 2003; Sherf *et al.*, 2021). Such behaviors are not merely individual responses but reflect implicit beliefs and organizational cultures that promote silence climates (Morrison and Milliken, 2000). They are further reinforced by collective management structures, defensive norms, and routines that discourage safe expression, such as

centralized decision-making and the lack of upward feedback channels.

Top management attitudes, supervisors' attitudes, and communication opportunities are key dimensions of silence climates, which can hinder error detection and organizational learning (Perlow and Williams, 2003; Vakola and Bouradas, 2005). Vakola and Bouradas (2005) developed a 15-item, three-dimensional scale to measure these silence climates; however, its application in Spanish-speaking contexts remains limited. This study aims to validate a Spanish version of the Organizational Silence Climate Perception Scale, thereby contributing to the availability of robust measurement tools for cross-context research.

Methodology

This study aims to validate a Spanish version of the Organizational Silence Climate Perception Scale, developed using a back-translation procedure to ensure semantic equivalence. Reliability and validity analyses (Churchill Jr., 1979), along with tests of convergent and discriminant validity (Fornell and Larcker, 1981), were conducted to support its use in future research. The study was conducted with Spanish-speaking participants from Santiago, Chile. A two-sample design was employed, with the first sample used for exploratory factor analysis (EFA; $n = 207$) and the second for confirmatory factor analysis (CFA; $n = 130$).

Data for the first sample, used in the exploratory factor analysis, were collected through snowball sampling via professional digital networks using an online survey platform. Participants were asked to refer to their most recent organizational experience (current or past), primarily in public institutions, universities, and private companies, when responding to the organizational climate questions.

The first sample for the exploratory factor analysis included 207 participants aged between 19 and 82 years ($M = 45.52$, $SD = 14.20$): 102 men (49.3%), 96 women (46.4%), 1 non-binary individual (0.5%), and 7 unspecified (3.4%). Most participants held a university degree (52.2%), followed by a master's degree (25.6%), technical education (10.6%), secondary education (7.7%), and a doctorate (3.9%). Employment status was diverse: full-time (40.1%), permanent staff (16.4%), fixed-term (8.7%), independent workers (15.0%), part-time (6.3%), job seekers (2.9%), self-employed (4.8%), students (3.4%), and others (1.4%). Positions included public officials (22.7%), employees (18.8%), coordinators (13.0%), supervisors/heads (13.0%), team leaders (12.6%), managers (5.3%),

consultants (3.9%), and others (14.0%). This heterogeneity enhances the exploratory scope of the analysis and supports the examination of organizational silence perceptions across diverse contexts.

The second sample, used for the confirmatory factor analysis, was collected through fieldwork in a public local government organization in Santiago, Chile, surveying 130 public employees. The sample consisted of 58.5% women and 41.5% men, with an average age of 44.68 years (range: 22–73 years). In terms of education, 59.2% held a university degree, 20% had higher technical education, 11.5% had completed secondary education, and 9.3% held postgraduate degrees. Unlike the exploratory sample, this second sample was drawn from a single organizational context, providing a more controlled setting for confirmatory analysis.

Overall, the use of two independent samples—one heterogeneous for EFA and one more homogeneous for CFA—strengthens the methodological rigor of the study by allowing both exploratory and confirmatory validation of the proposed measurement model.

Results

First, using the first exploratory sample, the reliability of Factor 1, "Top Management Attitudes Toward Silence" (Table I), is presented. Cronbach's alpha (α) and McDonald's omega (ω) were used to assess internal consistency, ensuring that the items adequately represent the underlying construct. The items of Factor 1 evaluate employees' perceptions of how top management handles disagreement, including whether employees are encouraged to speak up or face potential negative consequences (Table I).

The reliability analysis shows Cronbach's alpha (α) = 0.845, indicating high internal consistency for items measuring top management attitudes toward silence. McDonald's omega (ω) = 0.854, which accounts for factor loadings, closely aligns with α , further supporting reliability. The Average Variance Extracted (AVE) = 0.550 indicates that over 50% of item variance is explained by the factor, meeting acceptable reliability and validity thresholds. These results confirm the scale's reliability and convergent validity, supporting its use in research on organizational climate and workplace silence. Consistent with previous findings (Vakola and Bouradas, 2005), items C1 and C2 performed differently from C3–C5.

Next, Factor 2, "Supervisors' Attitudes Toward Silence" (Table II), is analyzed using the same indicators (α and ω , using the first exploratory

TABLE I
RELIABILITY ANALYSIS – FACTOR 1. TOP MANAGEMENT ATTITUDES TOWARD SILENCE

Item	Statement	M	SD	λ	ϵ^2
C1	La alta dirección de la institución alienta a los funcionarios a expresar sus desacuerdos con respecto a los asuntos de la institución.*	3.217	1.385	0.707	1.419
C2	En esta institución, las personas se sienten libres de expresarse.*	3.005	1.360	0.849	1.128
C3	Si estás en desacuerdo sobre asuntos de la institución, la alta dirección puede caracterizarte como una persona problemática.	3.401	1.365	1.168	0.497
C4	Si expresas tus desacuerdos con respecto a los asuntos de la institución, podrías sufrir consecuencias negativas provenientes de la alta dirección.	2.990	1.404	1.112	0.735
C5	Si estás en desacuerdo sobre asuntos de la institución, la alta dirección podría percibirlo como una falta de lealtad.	3.106	1.448	1.222	0.601

n = 207; $\alpha = 0.845$; $\omega = 0.854$; AVE = 0.550; $\sqrt{\text{AVE}} = 0.742$; authors' elaboration using SPSS. Items marked with an asterisk (*) are reverse-coded statements used to measure the perception of a silence climate. Statements are presented in Spanish, as administered in the original instrument.

sample). It assesses employees' perceptions of how supervisors handle disagreements, encourage criticism, and value differing viewpoints. Table II presents items and descriptive statistics. Cronbach's alpha for this factor is 0.918, indicating high internal consistency, with McDonald's

omega = 0.920 confirming reliability. The Average Variance Extracted (AVE) = 0.695 shows that about 70% of item variance is explained by the factor, demonstrating excellent convergent validity. Together, these results indicate a robust measurement of supervisors' attitudes toward silence.

Next, Factor 3, "Communication Opportunities" (Table III), is analyzed (using the first exploratory sample). It assesses employees' perceptions of communication quality and effectiveness across departments and with top management, including satisfaction with

TABLE II
RELIABILITY ANALYSIS FACTOR 2: SUPERVISORS' ATTITUDES TOWARD SILENCE

Item	Statement	M	S	λ	ϵ^2
C6	Creo que mi jefatura o supervisor maneja bien los conflictos entre los funcionarios.*	2.836	1.429	1.292	0.371
C7	Creo que mi jefatura o supervisor presta atención a lo que dicen sus funcionarios.*	2.609	1.328	1.197	0.331
C8	Creo que mi jefatura o supervisor solicita críticas a sus funcionarios.*	3.034	1.334	0.929	0.918
C9	Creo que mi jefatura o supervisor fomenta que sus funcionarios expresen opiniones diferentes o desacuerdos..	2.884	1.375	1.042	0.803
C5	Si estás en desacuerdo sobre asuntos de la institución, la alta dirección podría percibirlo como una falta de lealtad.	3.106	1.448	1.222	0.601

n = 207; $\alpha = 0.918$; $\omega = 0.920$; AVE = 0.695; $\sqrt{\text{AVE}} = 0.834$; (*): reverse-coded statements to measure the perception of a silence climate. Source: Authors' own elaboration using SPSS. Statements are presented in Spanish, as administered in the original instrument.

TABLE III
RELIABILITY ANALYSIS FACTOR 3: COMMUNICATION OPPORTUNITIES

Item	Statement	M	SD	λ	ϵ^2
C11	La comunicación con funcionarios de otros departamentos o direcciones es satisfactoria.*	2.324	1.152	0.738	0.782
C12	Existe un intercambio sistemático y organizado de conocimientos y experiencias entre los funcionarios de esta institución.*	2.874	1.240	0.882	0.760
C13	Hay una comunicación adecuada entre los funcionarios y los altos directivos de esta institución.*	3.039	1.295	1.012	0.653
C14	Los cambios institucionales se comunican adecuadamente a los funcionarios.*	3.072	1.372	1.110	0.651
C15	La institución mantiene a los funcionarios informados sobre su misión, planes y avances.*	2.604	1.265	1.028	0.544

n = 207; $\alpha = 0.867$; $\omega = 0.870$; AVE = 0.564; $\sqrt{\text{AVE}} = 0.751$; (*): reverse-coded statements to measure the perception of a silence climate. Source: Authors' own elaboration using SPSS. Statements are presented in Spanish, as administered in the original instrument.

interdepartmental communication, knowledge sharing, and information about institutional changes and goals. Table III presents items and descriptive statistics.

Cronbach's alpha = 0.867 and McDonald's omega = 0.870 confirm the factor's internal consistency. The Average Variance Extracted (AVE) = 0.564 shows that over half of the item variance is explained by the factor, supporting its use in research on organizational climate and workplace communication opportunities. Overall, the three factors exhibit satisfactory levels of reliability and convergent validity.

In exploratory factor analysis (EFA), communalities indicate the proportion of each item's variance explained by the extracted factors. Values range from 0 to 1, with higher values showing better representation. Table IV presents the initial (Init.) and extracted (Extr.) communalities for each item (using the first exploratory sample).

Table IV shows that extracted communalities (Extr.) are generally higher than initial communalities (Init.), indicating that the factor model adequately captures item variance. Higher extracted communalities mean the model explains more item variability. Items C6,

C7, C10, and C5 show high communalities (>0.70), indicating strong representation by the extracted factors and strong relationships with the latent constructs. Items C2, C3, C9, and C13 also show relatively high extracted communalities, suggesting they are adequately explained by the model, though less strongly. Items C11 (0.492) and C12 (0.579) present lower communalities, indicating a substantial portion of variance not explained by the factors and a weaker association with the underlying construct.

Two indicators support model adequacy: KMO = 0.895, indicating excellent sampling adequacy (>0.80) and suitability for factor analysis; and Bartlett's test of sphericity ($\chi^2 = 2111.418$, $df = 105$, $p < 0.001$), confirming the correlation matrix is not an identity matrix and that factor analysis is appropriate. Taken together, these results support the adequacy of the data for factor analysis and the robustness of the extracted structure.

In exploratory factor analysis (using the first exploratory sample), the goal is to identify latent factors explaining item correlations. A key element is the variance explained by each factor, indicating how well the factors represent the data. Table V reports the total variance

explained, including initial eigenvalues, extraction sums of squared loadings, and rotation sums of squared loadings.

Table V presents the eigenvalues indicating the variance explained by each factor. Factor 1 has an eigenvalue of 7.254, explaining 48.36% of the variance; Factor 2 has 1.834 (12.22%); and Factor 3 has 1.364 (9.09%). The fourth factor is at the margin of acceptability. According to the Kaiser rule (eigenvalue > 1), these factors should be retained. The extraction sums of squared loadings show the variance explained before rotation, with cumulative variance reaching 76.44% after four factors. After rotation, which clarifies item loadings and simplifies the factor structure, the rotation sums of squared loadings show a more balanced variance distribution.

The rotated factors are: Factor 1 (eigenvalue 3.492; 23.28%), Factor 2 (2.694; 17.96%), and Factor 3 (2.497; 16.65%). Together, the first three rotated factors explain 57.89% of the variance, indicating a good distribution among retained factors. Overall, the extracted factors explain 80.25% of the total variance, indicating good model fit. After rotation, the first three factors account for most variance and clearly represent the

TABLE IV
COMMUNALITIES

Item	Init.	Extr.	Item	Init.	Extr.	Item	Init.	Extr.
C1	0.575	0.703	C6	0.784	0.801	C11	0.462	0.492*
C2	0.646	0.772	C7	0.792	0.783	C12	0.555	0.579*
C3	0.642	0.698	C8	0.517	0.523*	C13	0.636	0.678
C4	0.599	0.680	C9	0.590	0.643	C14	0.607	0.601
C5	0.659	0.767	C10	0.759	0.813	C15	0.625	0.671

KMO = 0.895; Bartlett's $\chi^2 = 2111.418$, $df = 105$, $p = 0.000$; Init.: Initial Commuality; Extr.: Extracted Commuality; extraction method: Principal Axis Factoring.

TABLE V
TOTAL EXPLAINED VARIANCE

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	Variance	Cumulative	Total	Variance	Cumulative	Total	Variance	Cumulative
		(%)	(%)		(%)	(%)		(%)	
1	7.254	48.361	48.361	6.950	46.335	46.335	3.492	23.277	23.277
2	1.834	12.224	60.586	1.533	10.222	56.558	2.694	17.958	41.235
3	1.364	9.092	69.677	0.985	6.568	63.126	2.497	116.650	57.885
4	1.015	6.764	76.441	0.736	4.910	68.036	1.523	110.151	68.036
5	0.571	3.807	80.249						

Extraction method: Principal Axis Factoring.

data structure, supporting the model's validity for further analysis.

Table VI (Rotated Factor Matrix) presents item loadings after Varimax rotation with Kaiser normalization, facilitating a clearer interpretation of the factor structure.

Table VI assigns each item to the factor with its highest loading (marked with *), indicating its predominant factor: a) Factor 1 (F1): Items C3 (0.719), C4 (0.774), and C5 (0.826) load most strongly, with C5 showing the highest loading, indicating a strong association. These items reflect attitudes and perceptions of top management regarding freedom of expression and the handling of disagreements; thus, F1 represents top management attitudes toward organizational silence. b) Factor 2 (F2): Items C6 (0.804), C7 (0.791), C8 (0.689), C9 (0.777), and C10 (0.816) load on this factor, with the highest values for C6 and C7. These items capture employees' perceptions of supervisors' management of communication and information exchange, indicating that F2 reflects supervisors' attitudes toward openness and communication practices. c) Factor 3 (F3): Items C11 (0.680), C12 (0.671), C13 (0.580), C14 (0.640), and C15 (0.716) load on this factor. They relate to perceptions of communication opportunities and top management's receptiveness to employees' opinions. d) Factor 4 (F4): Items C1 (0.766) and C2 (0.734) load strongly but conceptually overlap with F1, confirming their differential behavior noted in the reliability analysis (Table I).

Varimax rotation with Kaiser normalization clarified the factor structure by strengthening loadings on a single factor and reducing cross-loadings, thereby improving interpretability. Overall, the factors represent key dimensions of the organizational silence climate: top management attitudes (F1), supervisors' attitudes (F2), communication opportunities (F3), and an overlapping dimension related to top management (F4).

Consistent with the original study by Vakola and Bouradas (2005), C1 and C2 show differentiated behavior, while C8, C11, and C12 present lower loadings, partially diverging from the original findings.

Following the exploratory factor analysis, which supports the three-dimensional structure proposed by Vakola and Bouradas (2005), and based on the first exploratory sample (n = 207), a confirmatory factor analysis (CFA) was conducted using a second sample obtained through fieldwork in a local public government organization, surveying public employees (n = 130).

TABLE VI
ROTATED FACTOR MATRIX

	Factor			
	1	2	3	4
C1	0.206	0.164	0.215	0.766* (F4)
C2	0.308	0.268	0.259	0.734* (F4)
C3	0.719* (F1)	0.252	0.216	0.264
C4	0.774* (F1)	0.176	0.186	0.126
C5	0.826* (F1)	0.133	0.195	0.168
C6	0.197	0.804* (F2)	0.313	0.138
C7	0.223	0.791* (F2)	0.320	0.075
C8	0.121	0.689* (F2)	0.125	0.136
C9	0.059	0.777* (F2)	0.100	0.160
C10	0.252	0.816* (F2)	0.253	0.139
C11	0.058	0.129	0.680* (F3)	0.095
C12	0.100	0.241	0.671* (F3)	0.246
C13	0.430	0.259	0.580* (F3)	0.299
C14	0.290	0.278	0.640* (F3)	0.173
C15	0.329	0.213	0.716* (F3)	0.073

Extraction method: Principal Axis Factoring. Rotation method: Varimax with Kaiser normalization. The highest loading for each item is marked with an asterisk (*). Rotation converged in 5 iterations.

Convergent and discriminant validity analyses were subsequently performed to evaluate the quality of the proposed model, composed of three factors and the 15 original items. Table VII presents the square root of the Average Variance Extracted (\sqrt{AVE}) for each factor and the correlations among them.

Discriminant validity (Table VII) is assessed by comparing the square root of the AVE (\sqrt{AVE}) with the correlations between factors: a) F1-F2 = 0.362; b) F1-F3 = 0.766; c) F2-F3 = 0.584. Discriminant validity indicates problems in the 15-item model using the second fieldwork sample, as the \sqrt{AVE} does not exceed the correlation between Factor 1 and Factor 3, suggesting that these factors are not distinct. This finding points to a lack of discriminant validity in the 15-item model, likely due to the poor performance of some items identified in the initial exploratory factor analysis stage.

In addition, the model fit indices do not reach the recommended thresholds: RMSEA = 0.115; CFI = 0.864; TLI = 0.836; NFI = 0.804; IFI = 0.867. Values below 0.90 and an RMSEA above 0.08 indicate inadequate fit. Accordingly, the evaluation of a shortened model based on items with the highest factor loadings is warranted. Item reduction is expected to improve both model fit and discriminant validity. For the abbreviated model, items with the highest loadings from the exploratory factor analysis were selected: a) Factor 1: C3, C4, C5; b) Factor 2: C6, C7, C10; c) Factor 3: C13, C14, C15. The results of this confirmatory factor analysis are presented in Figure 1 and detailed in Tables VIII and IX.

The discriminant validity analysis of the three-factor, nine-item model (Table X) evaluates whether the factors are adequately differentiated, ensuring each measures a unique dimension without overlapping with the others.

TABLE VII
DISCRIMINANT VALIDITY OF THE 3-FACTOR MODEL WITH 15 ITEMS

\sqrt{AVE}	Factor 1	Factor 2	Factor 3
Factor 1	0.735*		
Factor 2	0.362	0.787*	
Factor 3	0.766	0.584	0.670*

RMSEA = 0.115; CFI = 0.864; TLI = 0.836; NFI = 0.804; IFI = 0.867; diagonal values marked with an asterisk* represent \sqrt{AVE} .

Discriminant validity is assessed by comparing the square root of the average variance extracted (\sqrt{AVE}) with the correlations between factors. The diagonal values marked with an asterisk represent \sqrt{AVE} : a) Factor 1 = 0.843; b) Factor 2 = 0.866; c) Factor 3 = 0.734. The inter-factor correlations are: a) F1–F2 = 0.382; b) F1–F3 = 0.747; c) F2–F3 = 0.642. Discriminant validity continues to raise concerns regarding the distinction between Factor 1 and Factor 3, suggesting that in the second sample—derived from fieldwork in a public organization—top management silence attitudes and

organizational communication opportunities may overlap. However, these values are close to the acceptable threshold, indicating that this overlap should be further examined in future studies.

Nevertheless, the model fit indices indicate a good fit: RMSEA = 0.075; CFI = 0.975; TLI = 0.962; NFI = 0.943; IFI = 0.975. These meet the recommended thresholds (RMSEA < 0.08; fit indices > 0.90), confirming a robust model fit. Overall, the abbreviated three-factor, nine-item model shows minor concerns regarding discriminant validity between Factor 1 and Factor 3, while

demonstrating strong overall model fit, suggesting preliminary support for its use in assessing perceptions of organizational climate and attitudes toward silence in Spanish-speaking contexts.

Table XI presents the results of reliability and convergent validity, including Cronbach's alpha (α), McDonald's omega (ω), and AVE with its \sqrt{AVE} for each factor.

Reliability is assessed using α and ω , and all values exceed 0.70, indicating high internal consistency and strong correlations among the items. Convergent validity is evaluated using AVE, and all AVE values exceed 0.50, meaning that each factor explains more than 50% of the variance of the items. Overall, the abbreviated model shows high reliability and adequate convergent validity (α and ω > 0.80; AVE > 0.50), supporting its validity for measuring the proposed constructs and its usefulness in future research on organizational silence climate and communication attitudes. These results are consistent with those reported by Vakola and Bouradas (2005), where alpha values were 0.84 (Factor 1), 0.89 (Factor 2), and 0.89 (Factor 3).

To validate the short version of the scale, a Pearson correlation analysis was conducted comparing the total scores of the full and short versions of the scale (Tangney *et al.*, 2004). The correlation between the short and full versions was $r = 0.969$, $p < 0.001$ (two-tailed). The high correlation ($r \approx .97$) indicates that the short version closely reproduces the variance of the full scale, which is psychometrically very strong.

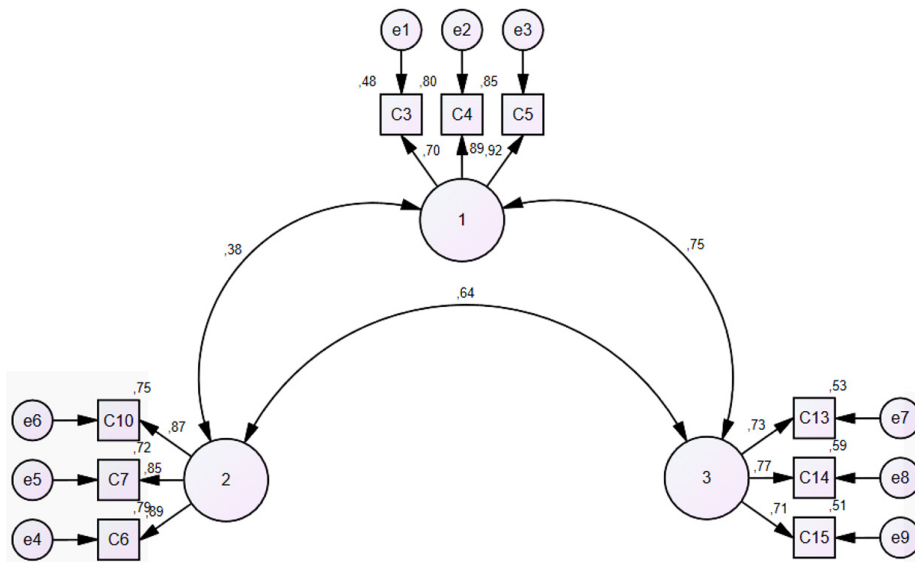


Figure 1. Abbreviated factor model. Source: Authors' own elaboration using AMOS.

TABLE VIII
ABBREVIATED VERSION OF THE INSTRUMENT BY VAKOLA AND BOURADAS (2005)

Item	Statement
Dimension 1: Top Management attitudes to silence	
C3	Si estás en desacuerdo sobre asuntos de la institución, la alta dirección puede caracterizarte como una persona problemática.
C4	Si expresas tus desacuerdos con respecto a los asuntos de la institución, podrías sufrir consecuencias negativas provenientes de la alta dirección.
C5	Si estás en desacuerdo sobre asuntos de la institución, la alta dirección podría percibirlo como una falta de lealtad.
Dimension 2: Supervisor's attitudes to silence	
C6	Creo que mi jefatura o supervisor maneja bien los conflictos entre los funcionarios.*
C7	Creo que mi jefatura o supervisor presta atención a lo que dicen sus funcionarios.*
C10	Creo que mi jefatura o supervisor considera las opiniones diferentes o desacuerdos como algo útil.*
Dimension 3: Communication Opportunities	
C13	Hay una comunicación adecuada entre los funcionarios y los altos directivos de esta institución.*
C14	Los cambios institucionales se comunican adecuadamente a los funcionarios.*
C15	La institución mantiene a los funcionarios informados sobre su misión, planes y avances.*

Note: Items marked with an asterisk (*) are reverse-coded statements to measure the perception of a silence climate.

TABLE IX
STANDARDIZED FACTOR LOADINGS
OF THE ABBREVIATED VERSION OF
THE INSTRUMENT BY VAKOLA AND
BOURADAS (2005)

			Estimate
C3	←	1	0.696
C4	←	1	0.892
C5	←	1	0.925
C15	←	3	0.888
C14	←	3	0.850
C13	←	3	0.868
C10	←	2	0.725
C7	←	2	0.771
C6	←	2	0.711

Source: Authors' own elaboration using AMOS.

Common method bias was also evaluated, a common issue in single-source studies that may inflate relationships between variables. Detection typically involves statistical tests such as single-factor analysis and model comparisons. The single-factor model shows poor fit: RMSEA = 0.266 (90% CI: 0.244–0.289), CFI = 0.693, and TLI = 0.591, all below recommended thresholds (e.g., CFI/TLI > 0.90). These results indicate poor model fit and therefore do not support the presence of common method bias. Overall, the inadequate fit of the unidimensional model further supports the need

for a multidimensional structure, such as the proposed three-factor model.

Discussion and Conclusion

The confirmatory factor analysis of the abbreviated Spanish version of the model proposed by Vakola and Bouradas (2005) provides robust evidence of the instrument's structure and validity for assessing perceptions of the climate of silence and communication attitudes within institutions. The three-factor, nine-item model demonstrates adequate reliability and validity, effectively measuring the dimensions of organizational silence; however, it also reveals concerns regarding discriminant validity between Factors 1 and 3. Nevertheless, the model fit indices show excellent fit, supporting the proposed structure despite these limitations.

In addition, the model demonstrates high reliability, with Cronbach's alpha and McDonald's omega indicating strong internal consistency. Taken together, these findings confirm the model's suitability for measuring key dimensions of organizational silence, including perceptions of top management and supervisors' attitudes, as well as communication opportunities, while acknowledging the partial overlap observed between top management attitudes and communication opportunities. Overall, the abbreviated three-factor, nine-item model provides a compact and effective version of the original instrument while maintaining reliability and validity. These findings support its

use in future research on organizational climate and silence, particularly in Spanish-speaking organizational contexts, offering an efficient tool to study employees' perceptions of communication and silence management.

In this context, most research on organizational silence has focused on the individual level, seeking to identify the motives behind employee silence. However, greater emphasis on multilevel and group-level approaches is required to capture the collective dynamics underlying silence climates. Accordingly, the validated instrument contributes to advancing this line of research by enabling the systematic study of silence as a shared organizational phenomenon.

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TABLE X
DISCRIMINANT VALIDITY OF THE 3-FACTOR ABBREVIATED MODEL
WITH 9 ITEMS

√AVE	Factor 1	Factor 2	Factor 3
Factor 1	0.843*		
Factor 2	0.382	0.866*	
Factor 3	0.747	0.642	0.734*

RMSEA = 0.075; CFI = 0.975; TLI = 0.962; NFI = 0.943; IFI = 0.975; * : diagonal values marked with an asterisk represent √AVE.

TABLE XI
RELIABILITY AND CONVERGENT VALIDITY OF THE NEW
ABBREVIATED MODEL

	α	ω	AVE	√AVE
Factor 1	0.873	0.881	0.710	0.843
Factor 2	0.902	0.903	0.750	0.866
Factor 3	0.774	0.784	0.540	0.734

n = 130; authors' own elaboration using SPSS.

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VALIDACIÓN DE UNA ESCALA DE PERCEPCIÓN DEL CLIMA DE SILENCIO ORGANIZACIONAL

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RESUMEN

El clima de silencio organizacional se refiere a la creencia compartida de que expresar opiniones en el lugar de trabajo resulta inconveniente o inútil, lo cual afecta negativamente la efectividad organizacional. Este estudio tiene como objetivo validar una versión en español de la Escala de Percepción del Clima de Silencio Organizacional. Mediante análisis factorial exploratorio ($n = 207$) y análisis factorial

confirmatorio ($n = 130$) realizados en dos muestras independientes, el modelo de tres factores mostró adecuada fiabilidad y validez, respaldadas por índices de ajuste satisfactorios y consistencia interna. Estos resultados respaldan el uso de la escala para evaluar el clima de silencio organizacional y las actitudes de comunicación relacionadas en contextos laborales hispanohablantes.

VALIDAÇÃO DE UMA ESCALA DE PERCEPÇÃO DO CLIMA DE SILÊNCIO ORGANIZACIONAL

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RESUMO

O clima de silêncio organizacional refere-se à crença compartilhada de que expressar opiniões no ambiente de trabalho é inconveniente ou inútil, o que afeta negativamente a efetividade organizacional. Este estudo tem como objetivo validar uma versão em espanhol da Escala de Percepção do Clima de Silêncio Organizacional. Por meio de análise fatorial exploratória ($n = 207$) e análise fatorial confirmatória ($n =$

130), realizadas em duas amostras independentes, o modelo de três fatores apresentou adequada confiabilidade e validade, sustentadas por índices de ajuste satisfatórios e consistência interna. Esses resultados sustentam o uso da escala para avaliar o clima de silêncio organizacional e as atitudes de comunicação relacionadas em contextos de trabalho de língua espanhola.

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