

ANÁLISIS DE LOS ESTILOS DE LIDERAZGO PERCIBIDOS POR EL PERSONAL ADMINISTRATIVO DE EMPRESAS FLORÍCOLAS GRANDES DE PICHINCHA AFILIADAS A EXPOFLORES MEDIANTE EL MLQ FORM 5X.

ANALYSIS OF LEADERSHIP STYLES PERCEIVED BY ADMINISTRATIVE STAFF OF LARGE FLORIGINAL COMPANIES IN PICHINCHA AFFILIATED WITH EXPOFLORES USING THE MLQ FORM 5X.

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RESUMEN: El propósito de esta investigación es analizar los estilos de liderazgo percibidos por el personal administrativo de las grandes empresas florícolas de la provincia de Pichincha, miembros de Expoflores, utilizando el cuestionario MLQ Form 5X. Con un enfoque cuantitativo y análisis descriptivo, se recolectaron y analizaron los datos mediante el programa SPSS, aplicando un corte transversal y diseño no experimental. El MLQ Form 5X está compuesto por 45 ítems, de los cuales 36 están destinados a medir nueve factores correspondientes a tres estilos de liderazgo: liderazgo transformacional (influencia idealizada de conducta y atribuida, motivación inspiracional, estimulación intelectual, consideración individualizada), liderazgo transaccional (recompensa contingente, dirección por excepción activa) y liderazgo laissez-faire (dirección por excepción pasiva y laissez faire). Los otros 9 ítems miden variables organizacionales (esfuerzo extra, eficacia, satisfacción laboral). Los análisis incluyeron pruebas de ANOVA, post hoc, el cálculo del alfa de Cronbach y correlaciones de Pearson. Los hallazgos muestran que el liderazgo transformacional predomina en las empresas, especialmente en directores y gerentes, generando altos niveles de motivación e innovación. El liderazgo transaccional, más común en niveles intermedios, se enfoca en recompensas y cumplimiento de tareas, mientras que el laissez-faire, observado principalmente en mandos operativos, refleja una falta de supervisión. Por áreas funcionales, el liderazgo transformacional destaca en talento humano, producción y TICS, mientras que el transaccional es más frecuente en SISO y producción. El laissez-faire se presenta más en finanzas. Las correlaciones reflejan que el liderazgo transformacional fortalece el esfuerzo adicional, la eficacia y la satisfacción en el trabajo, mientras que el estilo laissez-faire influye negativamente en el rendimiento.

Palabras clave: MLQ Form 5X, transformacional, transaccional, laissez faire/ pasivo, sector florícola

ABSTRACT: The purpose of this research is to analyze the leadership styles perceived by the administrative staff of large flower companies in the province of Pichincha, members of Expoflores, using the MLQ Form 5X questionnaire. With a quantitative approach and descriptive analysis, data were collected and analyzed using SPSS software, applying a cross-sectional and non-experimental design. The MLQ Form 5X is composed of 45 items, of which 36 are intended to measure nine factors corresponding to three leadership styles: transformational leadership (idealized behavioral and attributed influence, inspirational motivation, intellectual stimulation, individualized consideration), transactional leadership (contingent reward, active exception leadership) and laissez-faire leadership (passive exception leadership and laissez faire). The other 9 items measure organizational variables (extra effort, efficacy, job satisfaction). The analyses included ANOVA tests, post hoc, the calculation of Cronbach's alpha and Pearson correlations. The findings show that transformational leadership predominates in the companies, especially in directors and managers, generating high levels of motivation and innovation. Transactional leadership, more common in intermediate levels, focuses on rewards and task completion, while laissez-faire, observed mainly in operational management, reflects a lack of supervision. By functional areas, transformational leadership stands out in human talent, production and TICS, while transactional leadership is more frequent in SISO and production. Laissez-faire is more present in finance. The correlations reflect that transformational leadership strengthens additional effort, efficacy and job satisfaction in the work, while the laissez-faire style negatively influences performance.

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individualized consideration), transactional leadership (contingent reward, active management by exception), and laissez-faire leadership (passive management by exception and laissez-faire). The other 9 items measure organizational variables (extra effort, effectiveness, job satisfaction). The analyses included ANOVA tests, post hoc tests, the calculation of Cronbach's alpha, and Pearson's correlations. The findings show that transformational leadership predominates in companies, especially among directors and managers, generating high levels of motivation and innovation. Transactional leadership, more common at middle management levels, focuses on rewards and task completion, while laissez-faire leadership, observed primarily in operational management, reflects a lack of supervision. By functional area, transformational leadership is most prevalent in human talent, production, and ICT, while transactional leadership is most prevalent in SISO and production. Laissez-faire leadership is most prevalent in finance. The correlations reflect that transformational leadership enhances extra effort, effectiveness, and job satisfaction, while the laissez-faire style negatively influences performance.

Keywords: MLQ Form 5X, transformational, transactional, laissez faire/passive leadership, floriculture sector.

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INTRODUCTION

The Ecuadorian floriculture sector represents one of the main drivers of the national economy due to its high impact on exports and the generation of formal employment. According to the 2022 Companies Ranking published by SUPERCAS, there are 287 companies dedicated to flower cultivation, of which 68% of those destined for export are located in the province of Pichincha. During 2022, the floriculture sector generated approximately USD 548.64 million, representing 0.77% of the national Gross Domestic Product (GDP) and showing a 3% increase in its exports compared to the previous year, consolidating its positioning as a key player in the international market, with a special presence in the United States and Europe (28).

Despite its sustained growth, recognition, and stability in international trade, the floriculture sector faces challenges related to internal management, particularly regarding the practice of organizational leadership. Leaders and supervisors play an essential role in coordinating teams and building work environments that promote motivation, commitment, and productivity. Nevertheless, inadequate leadership can negatively affect the perception of the organizational climate, causing a decrease in performance, interpersonal conflicts, and lower job satisfaction (35).

In this context, knowing the leadership styles that predominate in floricultural companies in Pichincha affiliated with Expoflores acquires great relevance, as it allows identifying the practices that strengthen strategic direction and those that require improvement. Leadership is a fundamental competence in organizational sustainability, as it directly influences corporate culture, innovation, and human talent performance (19). Understanding whether leaders exercise transformational, transactional, or

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laissez-faire leadership, and how these styles are perceived by administrative collaborators, provides useful information to optimize human capital management.

Transformational leadership drives team members to achieve objectives beyond their individual interests, promoting motivation, creativity, and commitment (20). For its part, transactional leadership focuses on goal achievement through supervision and rewards, while the laissez-faire style reflects an absence of direction, characterized by the leader's lack of intervention in decision-making (14). Recent studies in industrial and service sectors show that transformational leadership is positively associated with job satisfaction and performance, while laissez-faire is linked to negative results (1).

However, the academic literature on leadership in the floricultural context is limited; most studies on leadership have concentrated on traditional sectors such as manufacturing or services, leaving aside agricultural industries such as floriculture, where hierarchical structure, labor temporality, and high staff turnover create particular management dynamics (22). This gap justifies the need for research that analyzes leadership styles in companies in the Ecuadorian floricultural sector, especially in large-sized ones that form part of Expoflores, the country's main export guild.

The present study seeks to analyze the leadership styles perceived by the administrative staff of large floricultural companies in the province of Pichincha, members of Expoflores, using the MLQ Form 5X questionnaire (7). This instrument, internationally validated, allows identifying nine factors associated with three leadership styles: transformational, transactional, and laissez-faire, in addition to measuring variables related to extra effort, effectiveness, and job satisfaction. Its application enables the comparison of perceptions among different hierarchical levels and functional areas within the organizations.

The analysis of the results will make it possible to determine whether the leaders of the floricultural sector predominantly adopt a style oriented toward people development or one centered on control and supervision. Likewise, it will allow recognizing whether there are significant differences in the leadership styles perceived among departments such as human talent, production, finance, or technology. Understanding these variations will contribute to the design of training programs and the strengthening of managerial skills, aligned with the needs of the sector and with organizational sustainability strategies (36).

Leadership styles decisively influence the well-being and performance of collaborators (46). Transformational leadership favors a motivating and participatory environment that stimulates organizational commitment and productive efficiency. On the contrary, passive styles, such as laissez-faire, can generate disorganization, low morale, and demotivation. In the floricultural context, where working conditions require coordination, planning, and constant communication, having transformational leaders is key to maintaining competitiveness and staff satisfaction.

Based on the foregoing, the guiding question of this research is: What are the leadership styles perceived by the administrative staff of large companies in the floricultural sector of the province of Pichincha, belonging to Expoflores, using the MLQ Form 5X tool?

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The general objective consists of analyzing the leadership styles perceived by the administrative staff of large companies in the floricultural sector affiliated with Expoflores in the province of Pichincha, through the application of the MLQ Form 5X questionnaire.

The specific objectives are:

- Determine the predominant leadership styles among the leaders of large companies in the Expoflores sector as perceived by the administrative staff.
- Analyze the predominant leadership styles at the different hierarchical levels and functional areas, and identify similarities or differences.
- Identify areas for improvement that allow reinforcing the identified leadership styles.

The scope of the study is descriptive, analytical, and cross-sectional. It seeks to interpret the perceptions of administrative staff regarding the leadership styles present in large floricultural companies in the province of Pichincha. The results will make it possible to identify which styles predominate and which aspects require strengthening, providing empirical evidence for human talent management in the sector. The research is based on the quantitative approach and uses the MLQ Form 5X tool as the central instrument for diagnosis (50).

In synthesis, the present work aims to fill a gap in the national literature on leadership in the floricultural sector, providing valuable information for strategic decision-making and for the promotion of transformational leadership that drives competitiveness, sustainability, and the well-being of collaborators.

MATERIALS AND METHODS

The research applies a quantitative approach, based on data collection and analysis to fulfill the stated objectives. Through the MLQ Form 5X questionnaire and descriptive statistical techniques, employees' perceptions of leadership styles were evaluated (50). The study has a non-experimental and cross-sectional design, which allowed obtaining information at a single point in time to describe the predominant styles.

The study was conducted in large companies associated with Expoflores, of which there are 26 active in Pichincha (30,31). A stratified probabilistic sampling was used to guarantee representativeness (50). Given the high turnover of operational staff, administrative personnel were considered, due to their direct contact with leaders and their participation in decisions, communication, and motivation (48). Table 1 details 5 companies, the total number of employees, and the corresponding percentage of administrative staff.

Table 1. Percentage of administrative staff by floricultural companies

COMPANY	EMPLOYEES	ADMINISTRATIVE
COMPANY A	1,621	14%
COMPANY B	345	5%
COMPANY C	1,315	5%
COMPANY D	684	7%

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COMPANY E	1,053	5%
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Considering the size of the company with 200 employees and the number of large companies associated with Expoflores in Pichincha being 26 companies, there are approximately 5,200 employees of which 7% belong to the administrative staff, as demonstrated in equation (1).

To determine the sample size, the statistical formula for finite samples equation (2) was used, as it allows determining the appropriate number of respondents based on the desired precision and the population size (11).

where:

N = Population size

Z = Critical value according to the confidence level (usually 1.96 for 95% confidence)

p = Estimated proportion (if unknown, 0.5 is usually used, as it maximizes the sample size)

E = Desired margin of error (for example, 5% or 0.05)

With a 95% confidence level, which corresponds to a Z value of 1.96, and a maximum margin of error of 5%, the result is that the study requires the approximate application of 187 surveys.

Through the MLQ Form 5X tool (Multifactor Leadership Questionnaire), translated and adapted to the Ecuadorian context in order to minimize errors and facilitate participants' understanding. This instrument allows evaluating employees' perceptions of their supervisors' leadership styles, considering three dimensions: transformational leadership, transactional leadership, and laissez-faire leadership.

The version used is composed of 45 items, of which 36 are associated with leadership factors and 9 with organizational outcome variables, such as extra effort, effectiveness, and job satisfaction. The questionnaire was applied to subordinates, who had to indicate their work area, position, age, and gender of the leader, using a Likert-type scale from 0 to 4, suitable for quantitative analysis.

The model includes three higher-level variables: transformational leadership—with five factors: idealized influence (behavior and attributes), inspirational motivation, intellectual stimulation, and individualized consideration—; transactional leadership, composed of contingent reward and active management by exception; and passive leadership, which groups passive management by exception and the laissez-faire style, together with the remaining nine items that evaluate organizational aspects such as followers' extra effort, leader effectiveness, and group satisfaction (20), as indicated in Figure 1.

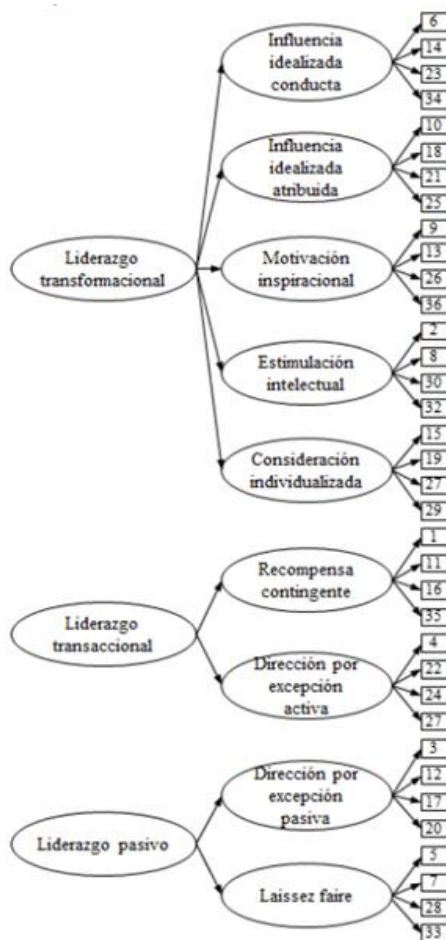


Figure 1. Factorial structure of the original 36-item version of the MLQ-5X.

Source: (19).

[Figure 1 image from original]

To analyze the leadership styles perceived by the administrative staff of large floricultural companies in the province of Pichincha belonging to Expoflores, 33 companies were contacted through calls, emails, and internal contacts, presenting the proposal and guaranteeing the confidentiality and anonymity of the responses. Finally, 26 companies agreed to participate, some with a reduced number of surveys due to the sensitivity of the information. The survey, with an approximate duration of 15 minutes, was prepared in Google Forms and included categorical variables (Annex A) and the MLQ Form 5X tool (Annex B), obtaining 187 responses from administrative collaborators from different areas and hierarchical levels.

The MLQ Form 5X made it possible to evaluate perceptions of three leadership styles—transformational, transactional, and laissez-faire—through 9 factors measured on a Likert scale from 0 to 4 (from “Never” to “Very frequently”). The data were organized digitally and classified by area and hierarchical level.

Data processing and analysis were carried out using SPSS (Statistical Package for the Social Sciences) software, recognized for its usefulness in social research (32). Descriptive analyses and measures of central tendency were applied to determine the predominant leadership, as well as Cronbach’s alpha coefficient to evaluate the

internal reliability of the scale (54). In addition, a one-way ANOVA and Tukey's post hoc tests were used to identify significant differences between areas and hierarchical levels, complemented by Pearson correlations to examine the relationships between leadership styles and organizational variables.

RESULTS

Predominant leadership styles in the floricultural sector

In Table 2, based on the responses of administrative subordinates, the frequencies of the categorical variables are identified.

Table 2. Data of the categorical variables.

BY WORK AREA

	f	%	% Cumulative
ICT and Processes	12	6.4	6.4
Commercial	28	15	21.4
Financial	14	7.5	28.9
Product research and development	14	7.5	36.4
Production	47	25.1	61.5
SISO	3	1.6	63.1
Supply chain	38	20.3	83.4
Human talent	31	16.6	100
Total	187	100	

BY DESIGNATION OF THE POSITION OF THEIR LEADER OR BOSS

	f	%	% Cumulative
Analyst	9	4.8	4.8
Coordinator	45	24.1	28.9
Director	14	7.5	36.4
Manager	37	19.8	56.2
Head	70	37.4	93.6
Deputy Manager	12	6.4	100
Total	187	100	

BY LEADER AGE RANGE

	f	%	% Cumulative
26-35	49	26.2	26.2
36-45	88	47.1	73.3
46-55	39	20.9	94.2
56-65	11	5.9	100

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Total	187	100	
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LEADER GENDER

	f	%	% Cumulative
Female	97	51.9	51.9
Male	90	48.1	100
Total	187	100	

The results show that the majority of respondents perform their functions in the production area (25.1%), followed by supply chain (20.3%), human talent (16.6%), commercial (15%), financial and R&D (7.5%), ICT (6.4%), and SISO (1.6%). Regarding the hierarchical position of the leaders, heads predominate (37.4%), followed by coordinators (24.1%), managers (19.8%), directors (7.5%), deputy managers (6.4%), and analysts (4.8%). Regarding the age range, the most representative group is 36 to 45 years (47.1%), followed by 26 to 35 years (26.2%), 46 to 55 years (20.9%), and 56 to 65 years (5.9%). Regarding gender, a slight female predominance is observed, with 51.9% women versus 48.1% men.

In synthesis, the floricultural sector of Pichincha presents a predominantly female leadership profile, with a predominant age between 36 and 45 years. Most leaders occupy head, coordination, or management positions, mainly in the areas of production, supply chain, human talent, and commercial, which reflects an organizational structure oriented toward operational and people management.

Table 3 presents the descriptive statistics of the nine factors that make up the leadership styles evaluated in the leaders of large floricultural companies associated with Expoflores, according to the perception of the administrative staff.

Table 3. Descriptive statistics of the 9 leadership factors.

Leadership style factors	Σ	Mean	SD	s^2	Sk	SE	K	SE
Idealized Influence Behavior (IIB)	564.750	3.020	0.885	0.784	-0.946	0.178	0.331	0.354
Idealized Influence Attributed (IIA)	573.250	3.066	0.872	0.761	-1.033	0.178	0.779	0.354
Inspirational Motivation (IM)	599.750	3.207	0.867	0.752	-1.270	0.178	1.108	0.354
Intellectual Stimulation (IS)	588.250	3.146	0.854	0.729	-1.213	0.178	1.005	0.354
Individualized Consideration (IC)	501.750	2.683	0.897	0.804	-0.602	0.178	0.084	0.354
Contingent Reward (CR)	550.500	2.944	0.767	0.588	-0.544	0.178	-0.473	0.354
Active Management by Exception (AME)	433.250	2.317	0.896	0.803	-0.429	0.178	0.072	0.354
Passive Management	253.250	1.354	0.909	0.827	0.797	0.178	0.221	0.354

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by Exception (PME)								
Laissez Faire (LF)	215.000	1.150	0.982	0.964	0.905	0.178	0.299	0.354
Valid N	187.000							

Note: SE=Standard Error, SD=Standard Deviation, Sk=Skewness, K=Kurtosis, Σ =sum, Mean, s^2 =Variance

Table 3 shows that transformational leadership is the predominant style in large floricultural companies, highlighting inspirational motivation (3.207) as the highest factor, followed by intellectual stimulation (3.146) and idealized influence, both behavioral (3.020) and attributed (3.066). These results indicate that leaders inspire, motivate, and promote creativity in their teams.

Transactional leadership is also present, with contingent reward (2.944) as its main component, which suggests that recognition of performance is valued, although it is not the dominant approach. In contrast, the lowest values correspond to laissez-faire (1.150) and passive management by exception (1.354), reflecting that the majority of leaders maintain active participation and do not avoid intervening in management.

The standard deviation ranges between 0.76 and 0.98, indicating moderate dispersion in the responses. The lowest variability is observed in contingent reward (0.767), which shows a uniform perception among respondents, while laissez-faire (0.982) presents the highest dispersion, evidencing more diverse opinions. In addition, the factors of transformational leadership exhibit negative skewness, concentrating responses at high values, while laissez-faire shows positive skewness, with responses mostly low on the Likert scale.

Figure 2 shows the results of Table 3 where it is observed that, within transformational leadership, individualized consideration presents the lowest value. In transactional leadership, active management by exception records a lower score than contingent reward, while the factors of laissez-faire leadership are the lowest compared to the other styles evaluated.

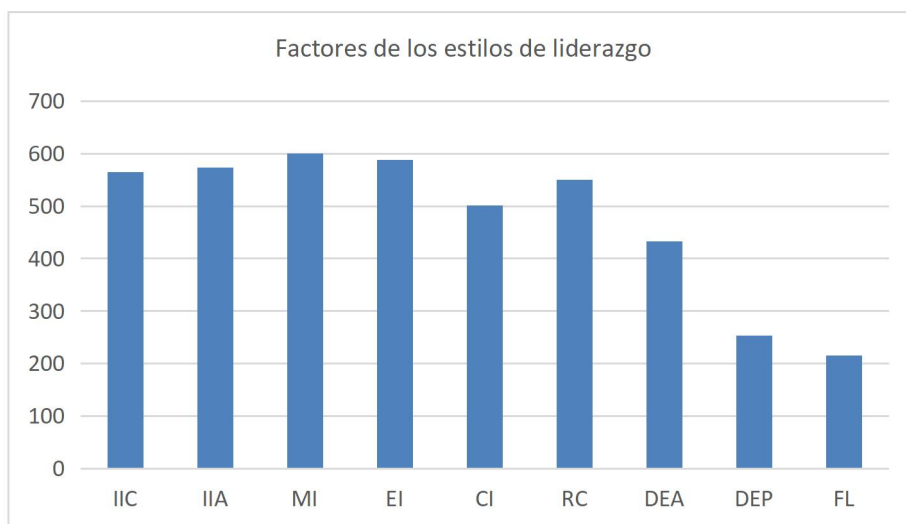


Figure 2. Factors of the leadership styles.

[Figure 2 image from original]

Table 4 presents the descriptive statistical analyses of the 3 leadership styles.

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Table 4. Predominant Leadership Styles.

	TF	TS	LP
Sum	565.550	491.875	234.125
Mean	3.024	2.630	1.252
Std. Deviation	0.791	0.649	0.861
Kurtosis	1.108	-0.326	0.824
Skewness	-1.162	-0.155	1.059
Variance	0.625	0.421	0.741

The results show that transformational leadership is the most predominant (3.024), evidencing leaders who inspire, motivate, and promote the development of personnel. It is followed by transactional leadership (2.630), associated with recognition and performance control, although with less impact. In contrast, laissez-faire leadership (1.252) is the least frequent, reflecting a low tendency toward non-intervention.

The lowest variability is presented in transactional leadership (SD: 0.649), indicating greater consensus among respondents, while laissez-faire shows the highest dispersion (SD: 0.861), which suggests more diverse perceptions. Figure 3 summarizes these results from Table 4, showing the distribution of the three leadership styles identified in large floricultural companies in the province of Pichincha.

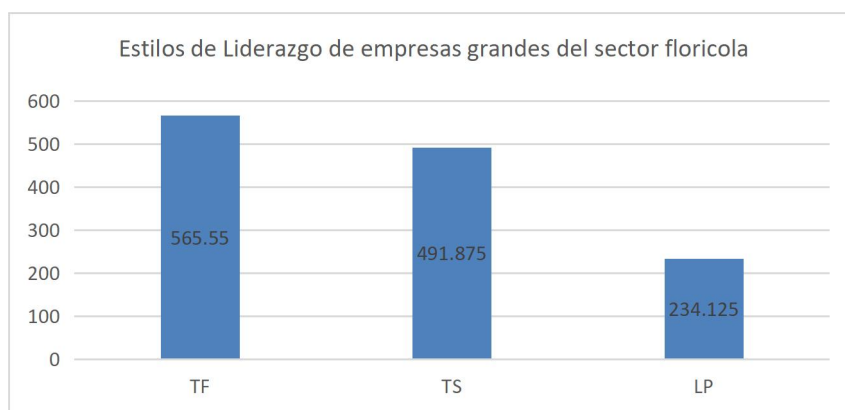


Figure 3. Transformational, transactional, and Laissez Faire Passive Leaderships.

Next, histograms on the leadership styles are presented.

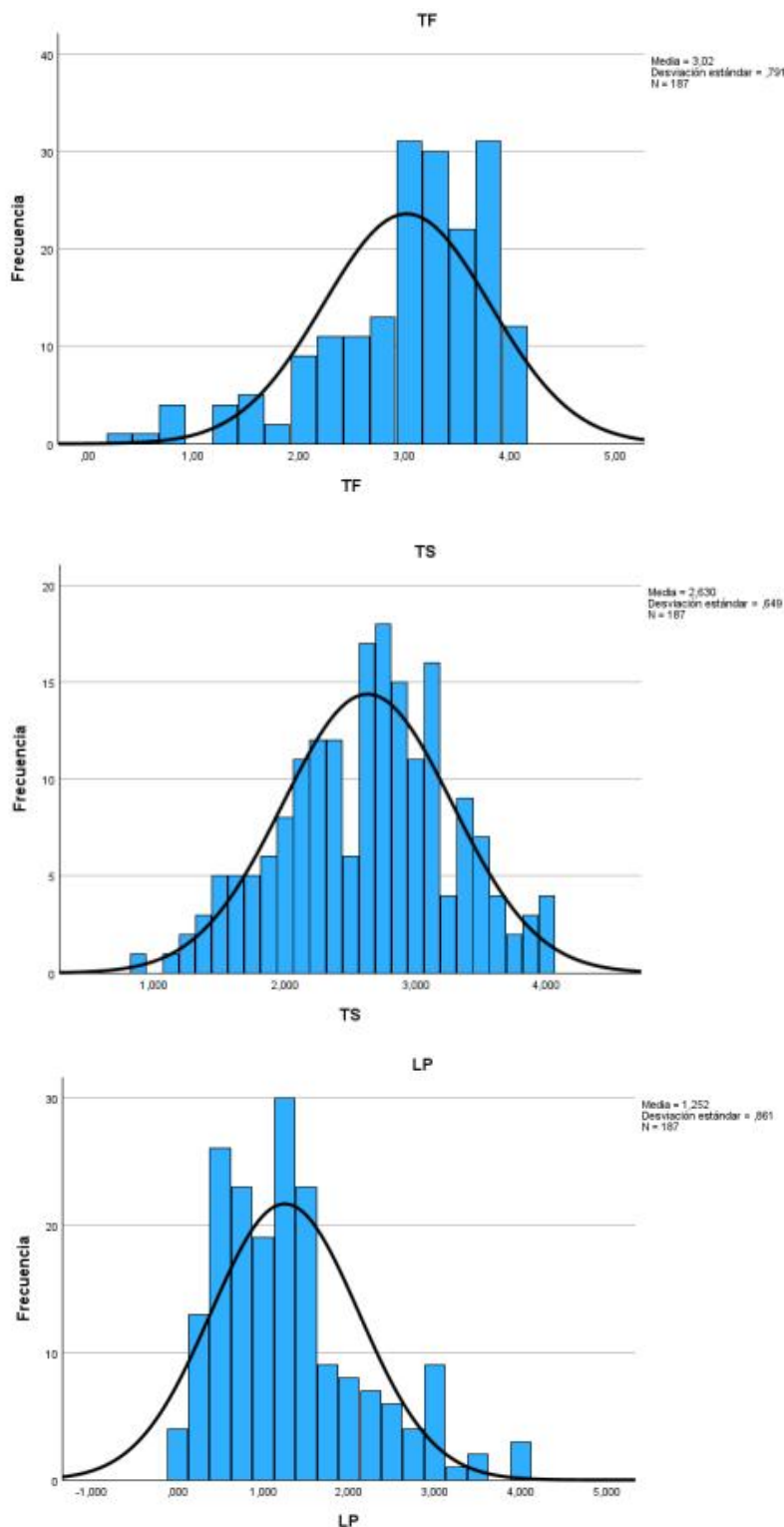


Figure 4. Histograms of the leadership styles identified in the floricultural sector of large companies in the province of Pichincha.

Figure 4 shows the histograms of the leadership styles in large floricultural companies in Pichincha. Negative skewness is observed in the transformational and transactional styles, which indicates that the majority of responses are concentrated at high values, while the positive skewness of laissez-faire confirms its low frequency. Altogether, the

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data evidence that transformational leadership is the predominant style in the floricultural sector of the province.

Regarding Table 5, a Cronbach's Alpha of 0.935 is presented, which evidences excellent internal consistency in the 45 questions of the MLQ Form 5X. This indicates that the items are highly correlated and measure the construct reliably, so it is not necessary to eliminate questions and it is possible to continue with the analysis by factors to evaluate the reliability of each leadership style.

Table 5. Cronbach's Alpha for the MLQ Form 5X questionnaire.

Cronbach's Alpha	Cronbach's Alpha based on standardized items	N of items
0.935	0.944	45

Analysis of the predominant leadership styles at the different hierarchical levels and functional areas, and identification of similarities or differences

Figure 5 shows that transformational leadership (TF) predominates at all hierarchical levels, especially among directors and managers. It is followed by transactional leadership (TS), with greater presence among deputy managers and coordinators, and lower among heads. Laissez-faire (LP) is the least frequent, although it appears at all levels, being more common among analysts and deputy managers, which reflects less intervention or greater delegation. In general, higher levels combine transformational and transactional styles, while laissez-faire is concentrated at the lower levels.

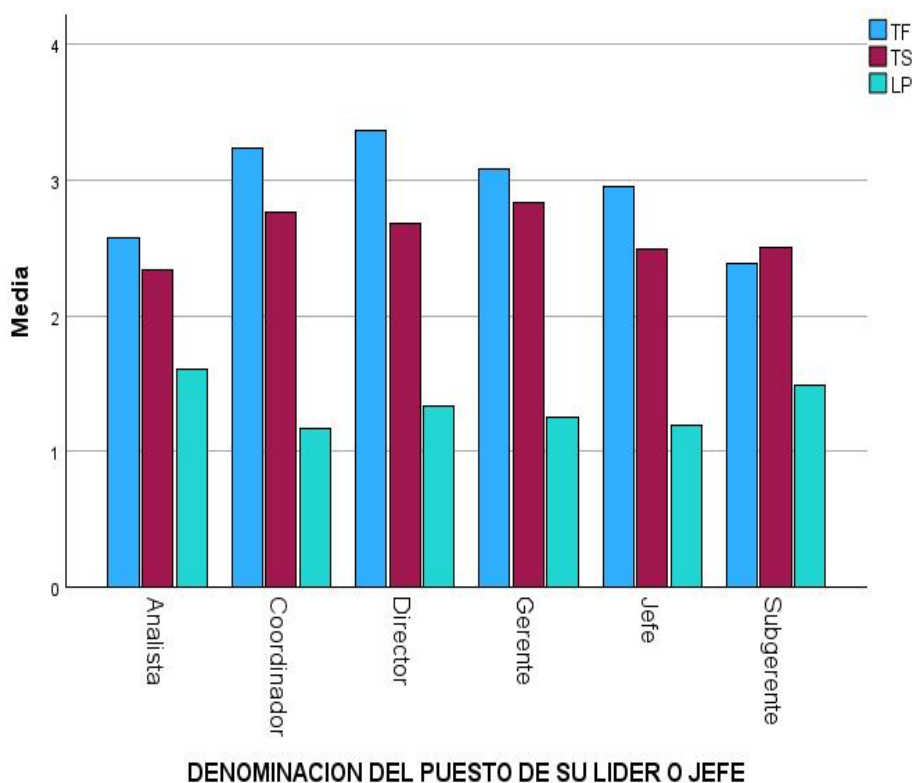


Figure 5. Leadership styles vs. designation of the leader's position.

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Table 6 presents the analysis of variance (ANOVA) that evaluates whether there are significant differences in the leadership styles (Transformational, Transactional, and Passive) among the six hierarchical levels. The hypotheses are posed:

H_0 : there are no significant differences among the hierarchical levels.

H_1 : there are significant differences among the hierarchical levels.

The decision criterion establishes that if $p < 0.05$ H_0 is rejected (there are significant differences), and if $p > 0.05$ H_0 is not rejected (there are no significant differences).

Table 6. ANOVA by hierarchical level.

ANOVA Table	Sum of squares	df	Mean square	F	Sig.
TF * POSITION DESIGNATION Between groups	10.74	5	2.148	3.683	0.003
Within groups	105.552	181	0.583		
Total	116.292	186			
TS * POSITION DESIGNATION Between groups	4.482	5	0.896	2.199	0.056
Within groups	73.763	181	0.408		
Total	78.245	186			
LP * POSITION DESIGNATION Between groups	2.704	5	0.541	0.724	0.606
Within groups	135.123	181	0.747		
Total	137.827	186			

Note: df= degrees of freedom, F=Fisher's test

The ANOVA in Table 6 shows significant differences in transformational leadership according to hierarchical level ($p = 0.003 < 0.05$), so H_0 is rejected. In contrast, the transactional ($p = 0.056$) and passive ($p = 0.606$) styles do not present significant differences ($p > 0.05$), indicating that the position does not influence these styles.

The Post Hoc (Tukey) test (Table 7) identifies three homogeneous subsets. The deputy manager level records the lowest mean (2.383), reflecting lower presence of transformational leadership. Analysts, heads, and managers show intermediate means, while coordinators (3.236) and directors (3.367) present the highest, evidencing a greater transformational tendency at higher levels. Altogether, the results confirm that transformational leadership varies according to hierarchical level, increasing in positions of greater responsibility.

Table 7. Post Hoc Analysis (Tukey) for transformational leadership.

Transformational Leadership - HSD Tukey ^{a, b}	N	Subset for alpha = 0.05 Group 1	Group 2	Group 3
Deputy Manager	12	2.383		
Analyst	9	2.578	2.578	

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Head	70	2.953	2.953	2.953
Manager	36	3.082	3.082	3.082
Coordinator	45		3.236	3.236
Director	15			3.367
Sig.		0.065	0.098	0.569

Note: N= Number of surveys

Figure 6 shows that transformational leadership (TF) presents the highest means in almost all areas, highlighting in SISO, ICT-Processes, Production, and Human Talent, which evidences greater influence and motivation of the leaders. Transactional leadership (TS) maintains intermediate values, with greater presence in ICT, Production, and SISO, reflecting an approach based on rewards. In contrast, laissez-faire (LP) records the lowest means, especially in Financial, Production, and Commercial, which suggests less intervention. Altogether, transformational leadership predominates, followed by transactional, while laissez-faire is the least frequent, indicating active management by the leaders.

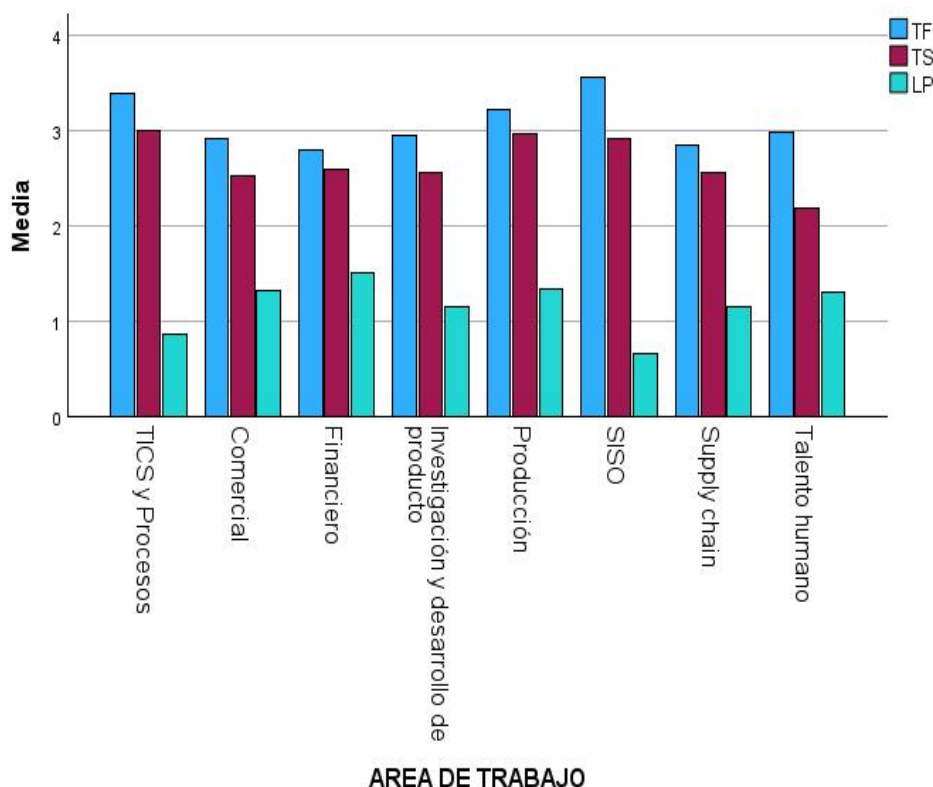


Figure 6. Work areas vs. leadership styles.

The ANOVA in Table 8 analyzes the differences in leadership styles according to the work area, posing the following hypotheses:

H_0 (Null hypothesis): There are no significant differences in the leadership style among the work areas.

H_1 (Alternative hypothesis): There are significant differences in the leadership style among the work areas.

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The results show that there are no significant differences in transformational leadership ($p = 0.164$) or in laissez-faire ($p = 0.461$), so H_0 is not rejected in these cases. In contrast, transactional leadership ($p < 0.001$) presents significant differences, which leads to rejecting H_0 and accepting H_1 , indicating that the way this style is applied varies according to the work area, while the other two styles remain stable among areas.

Table 8. ANOVA Leadership styles vs. work areas.

ANOVA Table	Sum of squares	df	Mean square	F	Sig.
TF * WORK AREA Between groups	6.515	7	0.931	1.518	0.164
Within groups	109.777	179	0.613		
Total	116.292	186			
TS * WORK AREA Between groups	13.934	7	1.991	5.54	<.001
Within groups	64.311	179	0.359		
Total	78.245	186			
LP * WORK AREA Between groups	4.994	7	0.713	0.961	0.461
Within groups	132.834	179	0.742		
Total	137.827	186			

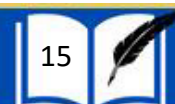
Given that transactional leadership presented a significance value $p < 0.05$, Tukey's Post Hoc test was applied (Table 9), which identified two homogeneous subsets, evidencing similarity within each group and differences between them.

The areas of human talent, commercial, supply chain, research and development, and financial obtained the lowest means (between 2.19 and 2.59), which reflects lower use of transactional leadership and less dependence on rewards or corrections. In contrast, the areas of SISO, production, and ICT recorded the highest means (between 2.917 and 3.00), indicating greater application of this leadership style, characterized by reinforcing performance through reward exchanges and clear expectations.

Table 9. Post Hoc Analysis vs. transactional leadership.

Transactional Leadership - HSD Tukey ^{a, b}	N	Subset for alpha = 0.05 1	2
Human Talent	31	2.190	
Commercial	28	2.518	2.518
Supply chain	38	2.553	2.553
Product research and development	14	2.563	2.563
Financial	14	2.598	2.598
SISO	3	2.917	2.917
Production	47		2.968

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ICT and Processes	12		3.000
Sig.		0.068	0.513

Figure 7 shows, through a bar chart, the leadership styles by areas and hierarchical levels in the floricultural sector. It is observed that transformational leadership (TF) is the most predominant, especially in R&D, Production, and in director, manager, and coordinator positions, reflecting an inspiring and strategic approach associated with greater motivation and staff performance.

Transactional leadership (TS) predominates at intermediate levels, mainly in production and supply chain, highlighting the use of incentives, control, and objective compliance. In finance, a balance between the TF and TS styles is appreciated, while laissez-faire (LP) is the least frequent, although more visible in production, commercial, and in positions such as analysts and deputy managers, which suggests greater delegation or less intervention. In general, the higher the hierarchy, the greater the tendency toward transformational leadership and the lower the presence of transactional leadership.

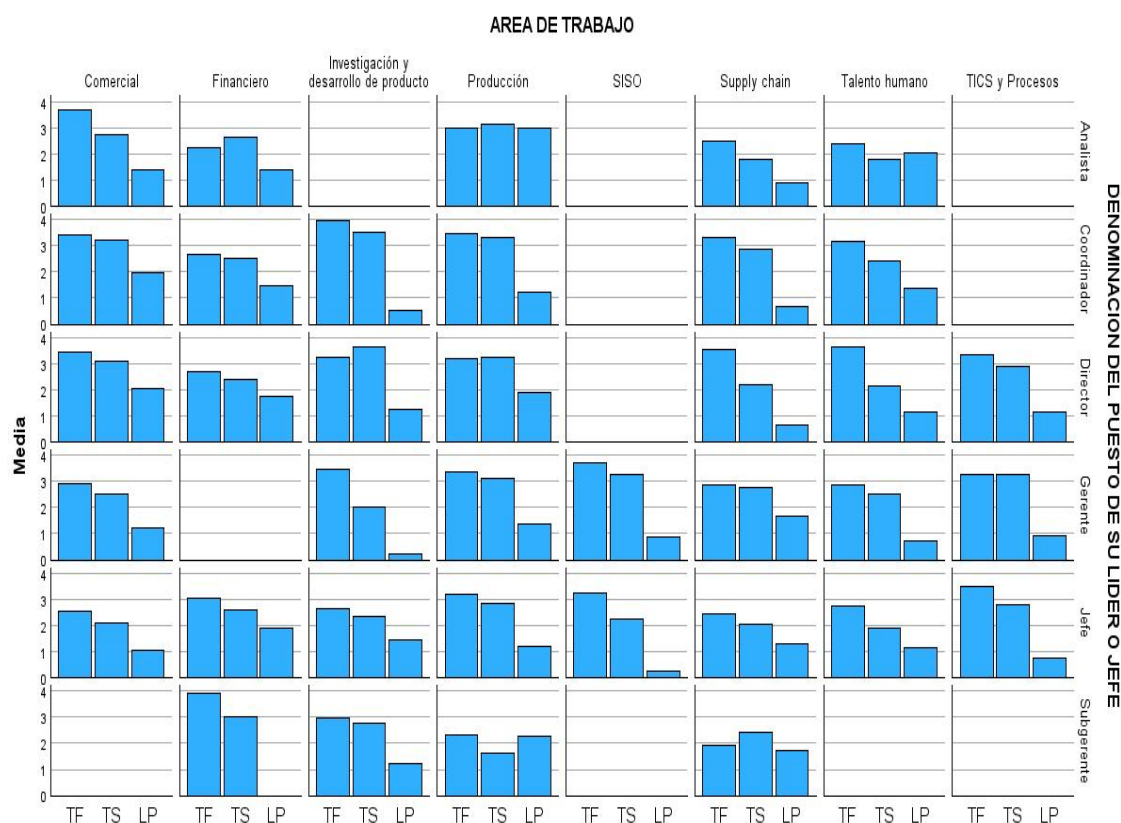


Figure 7. Predominant leadership styles by areas and by positions.

Identify areas for improvement that allow reinforcing the identified leadership styles

Table 10 evidences that transformational leadership (TF) maintains a strong positive correlation with extra effort (0.824), effectiveness (0.916)**, and job satisfaction (0.872), demonstrating its high impact on staff performance and motivation.

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Transactional leadership (TS) also presents moderate positive correlations with extra effort (0.495), effectiveness (0.549)***, and satisfaction (0.523), reflecting a favorable effect, although less pronounced. In contrast, laissez-faire (LP) shows negative correlations with transformational leadership (-0.406), extra effort (-0.356***), effectiveness (-0.450***), and satisfaction (-0.447***), indicating an adverse impact on performance and motivation. Altogether, the results confirm that transformational leadership is the most effective, while laissez-faire generates the most negative effects.

Table 10. Pearson correlations of the leadership styles and organizational variables.

		Correlaciones de Pearson					
		TF	TS	LP	Esfuerzo Extra	Eficacia	Satisfacción
TF	r	--					
	SS	116,292					
	Cov (X,Y)	0,625					
TS	r	,584**	--				
	Sig. (bilateral)	<,001					
	SS	55,701	78,245				
	Cov (X,Y)	0,299	0,421				
LP	r	-,406**	-0,011	--			
	Sig. (bilateral)	<,001	0,883				
	SS	-51,447	-1,127	137,827			
	Cov (X,Y)	-0,277	-0,006	0,741			
Esfuerzo Extra	r	,824**	,495**	-,356**	--		
	Sig. (bilateral)	<,001	<,001	<,001			
	SS	124,055	61,186	-58,373	194,932		
	Cov (X,Y)	0,667	0,329	-0,314	1,048		
Eficacia	r	,916**	,549**	-,450**	,851**	--	
	Sig. (bilateral)	<,001	<,001	<,001	<,001		
	SS	126,176	61,969	-67,527	151,674	163,112	

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	Cov (X,Y)	0,678	0,333	-0,363	0,815	0,877	
Satisfacción	r	,872**	,523**	-,447**	,856**	,902**	--
	Sig. (bilateral)	<,001	<,001	<,001	<,001	<,001	
	SS	129,376	63,64	-72,291	164,511	158,543	189,503
	Cov (X,Y)	0,696	0,342	-0,389	0,884	0,852	1,019

** The correlation is significant at the 0.01 level (2-tailed).

Note: R=Pearson correlation, SS=sum of squares, Cov(X,Y)=Covariance.

Figure 8 shows that the financial, commercial, and supply chain areas present lower values in the organizational variables, while SISO, production, and ICT record higher values. This indicates that the former could face greater challenges in extra effort, effectiveness, and job satisfaction, while the latter show better performance, possibly due to more efficient organizational structures.

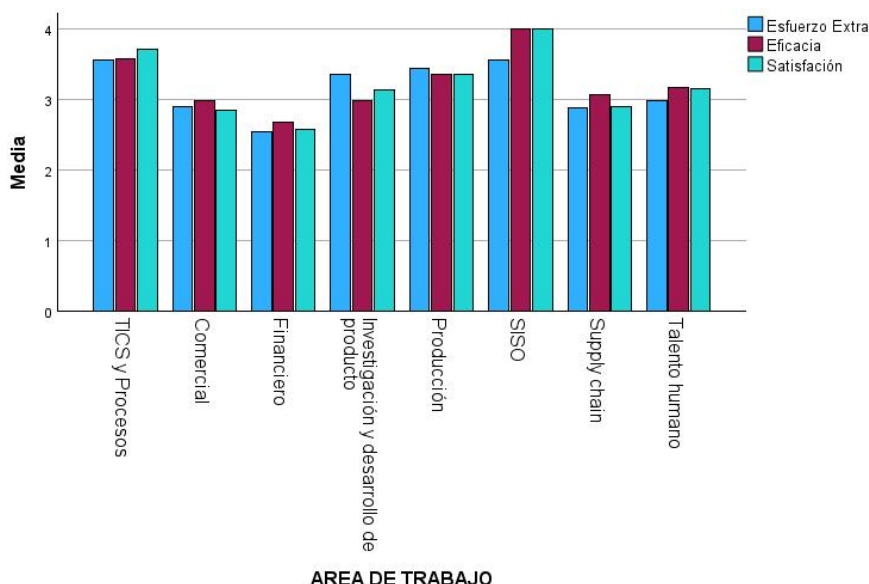


Figure 8. Organizational variables vs. work areas.

Table 11 shows that the factors of transformational leadership present strong correlations among themselves, evidencing coherence in this style. The relationships between Idealized Influence Attributed and Inspirational Motivation (0.790), Intellectual Stimulation and Individualized Consideration (0.754), and Idealized Influence Behavior and Intellectual Stimulation (0.804) stand out, which indicates that transformational leaders consistently apply behaviors of inspiration, stimulation, and personnel development.

The transactional factors show moderate correlations with the transformational ones, such as Contingent Reward and Inspirational Motivation (0.732) or Active Management by Exception and Intellectual Stimulation (0.180), which suggests that they also contribute to leadership, although with less impact.

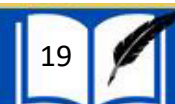
In contrast, the laissez-faire and passive management by exception styles present negative correlations with the transformational factors, such as Laissez-Faire and Inspirational Motivation (-0.434) and Passive Management by Exception and Intellectual Stimulation (-0.328), reflecting their low effectiveness for motivating and developing employees.

Altogether, the results confirm that transformational leadership is the most effective, while the laissez-faire and passive styles are less favorable for organizational management.

Table 11. Pearson correlations of the 9 factors of the leadership styles.

Correlaciones de Person										
		IIC	IIA	MI	EI	CI	RC	DEA	DEP	LF
Influencia Idealizada (IIC)		--								
Influencia Idealizada Atribuida (IIA)	CP	,778**	--							
	Sig	<,001								
Motivación Inspiracional (MI)	CP	,829**	,790**	--						
	Sig	<,001	<,001							
Estimulación Intelectual (EI)	CP	,804**	,785**	,793**	--					
	Sig.	<,001	<,001	<,001						
Consideración Individualizada (CI)	CP	,703**	,747**	,730**	,754**	--				
	Sig	<,001	<,001	<,001	<,001					
Recompensa contingente (RC)	CP	,707**	,680**	,732**	,740**	,648**	--			
	Sig	<,001	<,001	<,001	<,001	<,001				
Dirección por excepción activa (DEA)	CP	,182*	0,138	0,115	,180*	,204**	,212**	--		
	Sig	0,013	0,059	0,116	0,013	0,005	0,004			
Dirección por excepción pasiva (DEP)	CP	-,296**	-,301**	- ,356**	-,328**	-,166*	-,220**	,302**	--	
	Sig	<,001	<,001	<,001	<,001	0,023	0,002	<,001		

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Laissez Faire (LF)	CP	-,389**	-,408**	- ,434**	-,421**	-,237**	-,319**	0,139	,657**	-
	Sig.	<,001	<,001	<,001	<,001	0,001	<,001	0,057	<,001	

** The correlation is significant at the 0.01 level (2-tailed).

* The correlation is significant at the 0.05 level (2-tailed).

Figure 9 shows that the five factors of transformational leadership (TF) present the highest means compared to the transactional (TS) and laissez-faire (LP) styles, although differences that reflect areas for improvement are evidenced.

In transformational leadership, idealized influence of behavior is lower in finance and supply chain, which suggests reinforcing the exemplary role of the leader. Idealized influence attributed is lower in R&D, indicating the need to strengthen the perception of inspiring leadership. Inspirational motivation presents a low value in finance, evidencing lower capacity to motivate teams. Intellectual stimulation is low in commercial, which shows little fostering of creativity. Finally, individualized consideration has the lowest scores in commercial, supply chain, and financial, reflecting scarce attention to the individual needs of personnel.

In transactional leadership, contingent reward is low in human talent, signaling the lack of clear recognition systems, while active management by exception is low in all areas, especially in commercial, evidencing little intervention in the face of errors or low performance.

In laissez-faire leadership, both factors record relatively high values in finance, which suggests a lack of active supervision and possible deficit of control and direction. Altogether, the results confirm the predominance of transformational leadership, but also the need to strengthen individual attention, timely intervention, and control in certain areas.

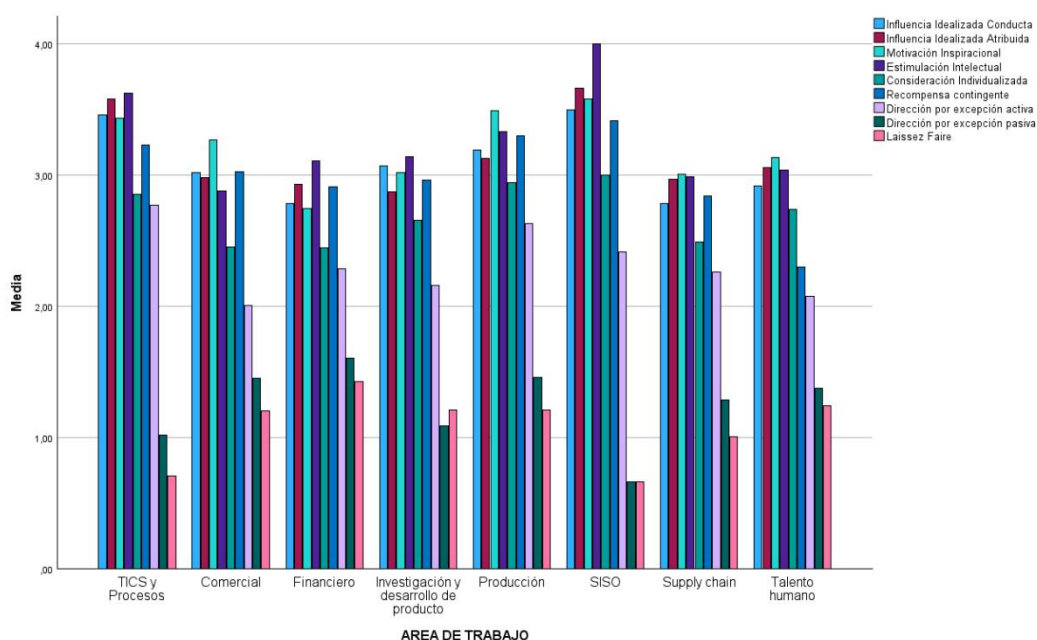


Figure 9. The 9 factors of the leadership styles vs. work area.

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DISCUSSION

The results of the study evidence that transformational leadership predominates in large floricultural companies associated with Expoflores, according to the perception of the administrative staff. This finding coincides with research that highlights the role of transformational leaders in the creation of positive and motivating work environments (16). In the companies analyzed, leaders show high levels of inspirational motivation (3.2072), intellectual stimulation (3.1457), behavioral idealized influence (3.020), and attributed idealized influence (3.066), key factors to foster innovation and talent development, as supported by (34).

Regarding hierarchical levels, transformational leadership predominates at all, especially among directors and managers (4), (17), (54), who affirm that high-ranking leaders tend to inspire and commit their teams. In contrast, transactional leadership is more frequent among heads and coordinators, which reflects an approach oriented toward rewards and task compliance (37), (39). Laissez-faire leadership, associated with low intervention, is observed more among analysts and deputy managers (42), who suggests that it can represent both empowering delegation and a lack of leadership.

Regarding functional areas, transformational leadership predominates in SISO, production, ICT-processes, and human talent, where innovation and motivation are essential (17). Transactional leadership manifests strongly in SISO, production, and ICT, reflecting greater control and focus on performance (Sosik & Godshalk, 2016). Laissez-faire, the least prevalent, confirms the preference for active leaders (39). Within the transactional approach, contingent reward (2.944) is the most relevant factor, although its impact is limited compared to transformational (19). The least common styles were passive management by exception (1.354) and laissez-faire (1.150), associated with lower organizational effectiveness (3).

The correlation analysis shows that transformational leadership presents the strongest relationships with extra effort (0.824), effectiveness (0.916), and job satisfaction (0.872), confirming its positive impact on commitment and productivity (21), (5). In contrast, transactional leadership has moderate effects (39), and laissez-faire is negatively associated with the organizational variables, evidencing its detrimental effect (42), (52).

Areas such as finance, commercial, and supply chain present lower levels of effort, effectiveness, and satisfaction, which suggests strengthening transformational leadership, while SISO and ICT stand out for their dynamism (29). The low idealized influence and inspirational motivation in finance and supply chain reflects the need for more inspiring leaders, while individualized consideration is low in almost all areas, especially in commercial and financial, indicating the need for greater attention to personal development (56).

Likewise, the low contingent reward in human talent evidences the need to improve incentive systems (26), (58). The limited active management by exception suggests little preventive intervention (2). Finally, the higher laissez-faire leadership in finance



could reflect control deficiencies (40), and may negatively affect organizational efficiency.

CONCLUSIONS

The results of the study evidence that transformational leadership is the predominant style in large companies in the floricultural sector of the province of Pichincha. This type of leadership is strongly associated with key variables such as extra effort, effectiveness, and job satisfaction, consolidating itself as the most effective in organizational management. Nevertheless, the presence of transactional leadership with positive impact, although to a lesser extent, was also identified, while laissez-faire leadership showed negative correlations, indicating possible adverse effects on the motivation and performance of personnel.

The analysis by hierarchical levels revealed that transformational leadership predominates among directors and managers, who tend to inspire and motivate their teams. In contrast, transactional leadership is observed mainly among heads and coordinators, who usually focus on supervision and task compliance. For its part, laissez-faire leadership is presented with greater frequency among analysts and deputy managers, reflecting lower intervention in decision-making and performance control.

The statistical correlations confirm that transformational leadership has the greatest positive impact on organizational effectiveness and employee satisfaction. Transactional leadership also influences favorably, but to a lesser proportion, as it focuses on rewards and clear structures. In contrast, laissez-faire leadership is associated with negative results, which suggests that a passive style can affect productivity and team cohesion.

Likewise, differences among functional areas were observed. The areas of finance, commercial, and supply chain showed the lowest levels of effectiveness, effort, and satisfaction, which evidences the need to strengthen transformational leadership in these departments. In contrast, other areas such as production, ICT, and SISO presented more favorable results, reflecting more active and collaborative leadership environments.

Individualized consideration obtained low scores in the majority of areas, which indicates that leaders must pay greater attention to the personal needs of their collaborators. In addition, active management by exception was also limited, which evidences little preventive intervention to solve problems. In the financial area, the notable presence of laissez-faire leadership signals the urgency of improving supervision and decision processes.

In conclusion, the floricultural companies of Expoflores can enhance their organizational performance through greater application of transformational leadership, complemented by effective transactional practices and avoiding passive styles, thereby strengthening commitment, motivation, and job satisfaction.

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