

DOI: <https://doi.org/10.63332/joph.v5i6.2593>

Organizational Climate and Productivity: The Case of a Credit Union in Ecuador

Yadira Tatiana López Mendoza¹, Ignacio Wilhem Loor Colamarco², Hilarión José Vegas Meléndez³, María Elena Moya Martínez⁴

Abstract

This study analyzes how organizational climate affects self-reported productivity in a savings and credit cooperative in Portoviejo, Ecuador. Cooperatives, operating under non-profit models aimed at economic inclusion, face the challenge of maintaining productivity while ensuring employee well-being. The aim was to measure the relationship between perceptions of organizational climate and self-reported productivity, providing empirical data to inform management strategies. The research adopted a quantitative approach, utilizing a questionnaire based on validated tools and applied to 39 workers, ensuring a representative sample with a 90% confidence level. For data analysis, linear regression was employed after normalizing productivity data using the Box-Cox transformation. The results revealed an overall organizational climate score of 82.05%, with satisfaction as the highest-rated dimension (82.05%) and motivation as the lowest (78.72%). Self-reported productivity scored 77.83%, reflecting a relatively high level but with room for improvement. Regression analysis identified motivation as the main determinant of productivity, showing a significant positive effect, while deficiencies in communication had a considerable negative impact. These findings have methodological implications, demonstrating the utility of combining validated tools for local contexts, and practical implications, highlighting the need to enhance motivation and optimize internal communication as key strategies to improve productivity and workplace well-being.

Keywords: Organizational Climate, Productivity, Motivation, Internal Communication, Cooperatives.

Introduction

Balancing productivity with sustainability and effectiveness is a significant challenge for savings and credit cooperatives. As financial institutions operating under a non-profit model aimed at economic inclusion, they must achieve organizational goals in efficiency and profitability while fostering a work environment that prioritizes employee well-being. These cooperatives play an essential role in local economies, such as in Ecuador, particularly in serving vulnerable populations. Enhancing productivity within such organizations carries both economic and social benefits, strengthening their ability to meet their mission of inclusive development.

Organizational climate emerges as a critical determinant of workplace productivity, shaping how

¹ Pontificia Universidad Católica del Ecuador sede Manabí, Email: ylopez7710@pucesm.edu.ec, <https://orcid.org/0009-0000-9370-5883>,

² Docente de la Pontificia Universidad Católica del Ecuador sede Manabí y Docente de la Facultad de Ciencias Humanísticas y Sociales, Universidad Técnica de Manabí, Email: iwloor@pucesm.edu.ec, Ignacio.loor@utm.edu.ec, <https://orcid.org/0000-0003-4806-1032>,

³ Docente investigador de la Pontificia Universidad Católica del Ecuador sede Manabí, Email: hvegas@pucesm.edu.ec, <https://orcid.org/0000-0002-8526-2979>,

⁴ Docente investigadora de la Pontificia Universidad Católica del Ecuador sede Manabí, Email: mmoya@pucesm.edu.ec, <https://orcid.org/0000-0001-7504-6933>,



employees perceive, react to, and engage with their environment. Defined by shared values, beliefs, and perceptions, organizational climate influences key areas such as job satisfaction, communication, and overall well-being. Its impact on individual and collective behaviors has been widely explored in organizational psychology, providing a foundation for understanding how workplace conditions affect performance and outcomes.

The unique context of each organization contributes to the specific dynamics that define its organizational climate. Managing these dynamics effectively requires a tailored approach, as a one-size-fits-all solution cannot account for the diverse ways in which organizational climate impacts productivity. Recent research, including the work of Sá et al. (2023), highlights the necessity of aligning climate management strategies with the cultural and operational characteristics of the institution. By acknowledging these differences, organizations can develop interventions that better suit their unique challenges and opportunities.

Understanding this complexity, this study aims to explore the relationship between organizational climate and workers' self-perceived productivity using internationally validated instruments. The novelty of this research lies in integrating standardized tests—specifically, the organizational climate assessment by Sashkin & Rosenbach (2013) and the self-perceived productivity scale by Haapakangas et al. (2018)—into a single tool applied to a real-world case: a savings and credit cooperative in Portoviejo, Ecuador. This innovative approach seeks to assess the relevance and adaptability of these tools to specific organizational contexts, providing empirical data that advance understanding in this field and support evidence-based decision-making.

Findings from this investigation hold significant implications for both theory and practice. The methodological innovation of integrating validated instruments offers a replicable approach for examining similar dynamics in other contexts. Moreover, these results provide actionable insights for developing human resource strategies that are both culturally sensitive and operationally effective. This study also emphasizes the importance of evidence-based policymaking, particularly in sectors where data on organizational climate and productivity remain scarce.

Methodologically, this research addresses a gap by adapting existing tools for a specific cultural and organizational setting. The combination of instruments enables a comprehensive analysis of how perceptions of climate influence productivity, offering a robust framework for future research. These methodological contributions highlight the importance of context-sensitive approaches to examining workplace dynamics, ensuring the relevance and applicability of findings across diverse organizational landscapes.

Practical implications include the identification of strategies to enhance employee motivation and optimize communication within organizations. Strengthening these dimensions could lead to tangible improvements in both productivity and employee well-being, particularly in non-profit settings like cooperatives. This study underscores the value of aligning management practices with employee perceptions, fostering environments that are both productive and supportive. Subsequent sections delve into the literature, describe the methods employed, analyze the findings, and conclude with reflections on the study's implications.

Theoretical Framework

The Relationship Between Organizational Climate and Productivity

The connection between organizational climate and work productivity has been extensively documented in the literature, demonstrating a direct relationship shaped by contextual and psychosocial factors. Organizational climate, defined as the shared perception of values, practices, and policies within an organization (Schein, 2010), serves as a crucial mediator influencing workers' behavior and performance. This construct impacts not only individual attitudes but also collective dynamics and overall organizational outcomes. Akpa et al. (2021) showed that a strong and adaptive organizational culture could drive substantial improvements in organizational performance. Similarly, Chen et al. (2023) emphasized the direct influence of organizational climate on operational efficiency within the financial sector. In savings and credit cooperatives, this relationship takes on unique characteristics due to the specific organizational traits of these entities, which often operate with a focus on financial inclusion. Maqsoom et al. (2020) identified that work environments fostering effective communication, collaboration, and motivation not only enhance employees' perceptions of their workplace but also strengthen organizational commitment and productivity. These findings underscore that a positive organizational climate is essential for achieving both employee well-being and operational sustainability.

Key Dimensions of Organizational Climate That Affect Productivity

The factors of organizational climate influencing productivity span individual, group, and organizational levels, intricately interwoven in complex dynamics. Cequea et al. (2011) identified key elements such as motivation, job satisfaction, group dynamics, and commitment as critical variables. Among these, motivation emerges as particularly significant, serving as a key driver of job performance. Espinosa-Pinos et al. (2023) highlighted that elements such as commitment, clarity in work expectations, and effective leadership are fundamental for boosting both motivation and productivity. Similarly, job satisfaction, intrinsically linked to organizational climate, plays a crucial role in shaping productivity levels. Bustamante Vidaurre et al. (2023) pointed out that adequate autonomy, coupled with positive interpersonal relationships, fosters a more efficient and quality-focused work environment.

Internal communication is another pivotal aspect, playing a central role in group cohesion and organizational efficiency. Ravina-Ripoll et al. (2023) stressed that a transparent and open communicative environment not only builds trust among employees but also enhances collaboration and minimizes operational errors. Additionally, working conditions and the perception of safety within the workplace are critical. Çevik Taşdemir et al. (2024) found that a secure organizational climate significantly increases employees' productive energy. Similarly, Granovetter (2017) highlighted a direct correlation between positive working conditions and higher productivity levels. Lastly, Xia et al. (2023) emphasized maintaining a balance between quality and speed in task execution, noting that employees in organizational climates valuing both aspects perceive themselves as more productive and satisfied with their results.

Demographic and Contextual Factors in the Climate-Productivity Relationship

Demographic and contextual factors also serve as mediators in the relationship between organizational climate and productivity, underscoring the necessity of personalized management strategies. Variables such as age, gender, tenure, and job position shape how employees experience and perceive their work environment, as well as their productivity outcomes. Lydell

et al. (2019) revealed that creating a favorable organizational climate for older employees significantly enhances their well-being and productivity, while Thommes & Klabuhn (2021) emphasized the benefits of age diversity within teams, particularly for tackling highly complex tasks.

Gender also emerges as an influential variable. Kagan et al. (2021) found that women report higher levels of job satisfaction in inclusive environments, which translates into increased productivity. Similarly, Castañeda-Santillán & Sánchez-Macías (2022) highlighted that gender dynamics affect the perception of working conditions and the effectiveness of incentives. Savings and credit cooperatives, in particular, present distinctive organizational contexts that necessitate tailored approaches to fostering a positive organizational climate. Padilla-Lozano & Collazzo (2022) highlighted that initiatives such as corporate social responsibility and green innovation not only enhance organizational performance but also strengthen organizational culture, particularly in specific environments like manufacturing industries in Ecuador.

Organizational Climate as a Foundation for Productivity Improvement Strategies

The literature suggests no universal strategy for managing organizational climate to improve productivity, as approaches must be tailored to each organization's unique characteristics. Noguer-Juncà & Vallbona (2021) demonstrated that inclusion and equity policies not only promote a more inclusive organizational culture but also enhance service quality and productivity. In the context of credit unions, capacity building and professional training emerge as key strategies. Maqsoom et al. (2020) showed that technical skills training and improved labor relations bolster organizational climate and, consequently, productivity. Furthermore, Ravina-Ripoll et al. (2023) emphasized fostering innovation and intrapreneurship through effective communication and consistent organizational support.

Employee well-being and work-life balance also stand out as essential elements. Torrisi (2013) argued that organizational climates prioritizing employee well-being lead to higher productivity levels. Management strategies must therefore ensure that workers perceive their work environment as not only safe and equitable but also as a space that values their professional and personal growth. This integrated approach enables organizations to enhance efficiency while contributing to their sustainable development.

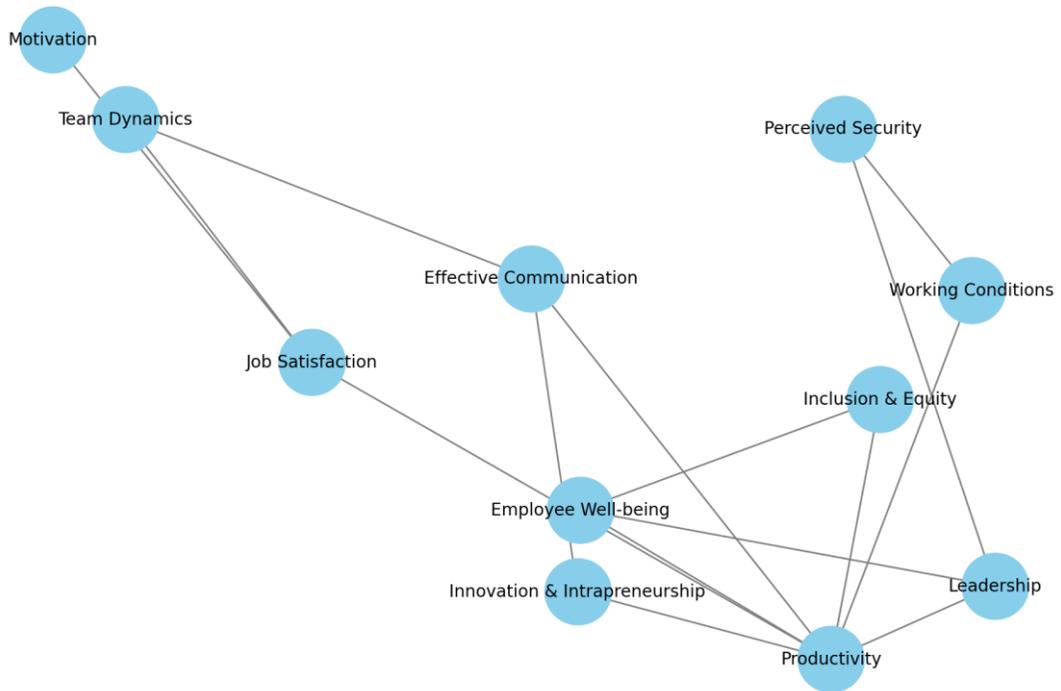


Figure 1. Causal Map Between Organizational Climate And Productivity

Source: Authors' elaboration based on the analysis of the literature

The causal map illustrates the interaction between dimensions of organizational climate and their impact on worker productivity. Fundamental factors such as motivation and job satisfaction form the foundation of the diagram. Espinosa-Pinos et al. (2023) emphasized that motivation is closely tied to leadership and clarity in job expectations, both of which enhance job satisfaction. This dynamic fosters a conducive environment for team interactions, which, as Bustamante Vidaurre et al. (2023) noted, are crucial for building collaboration and trust among employees. Effective communication, highlighted by Ravina-Ripoll et al. (2023), further facilitates innovation and the exchange of ideas within organizations.

As depicted in the map, working conditions and perceptions of safety gain prominence as essential elements. Çevik Taşdemir et al. (2024) observed that a secure and well-designed work environment boosts employee confidence, enabling leadership to focus on capability development. Leadership, in turn, significantly affects employee well-being, a factor that Granovetter (2017) identified as vital for sustaining high performance and organizational commitment. Coupled with inclusive and equitable policies, this well-being fosters a workplace where employees feel valued and supported, as Kagan et al. (2021) observed. Ultimately, inclusion and equity act as catalysts for productivity by shaping a more robust organizational climate.

The diagram also highlights the interdependent nature of various dimensions that influence productivity. Effective communication and innovation exert direct effects on organizational outcomes, while job satisfaction and employee well-being serve as cross-cutting factors, connecting multiple system levels. Xia et al. (2023) stressed that balancing quality and speed in

the workplace is critical for optimizing productivity. This causal approach reinforces the notion that productivity is a synergistic outcome, influenced by diverse organizational climate dimensions, and necessitates sensitive management strategies tailored to specific organizational contexts.

The relationship between organizational climate and labor productivity is a multifaceted phenomenon shaped by intricate interactions among organizational, individual, and contextual factors. While existing literature consistently supports the benefits of a positive organizational climate, it also underscores the need for tailored strategies to address the unique characteristics of each organization. This theoretical framework offers valuable insights for examining these dynamics within Ecuador's credit unions, a sector balancing social and economic objectives. By contextualizing the climate-productivity relationship, this study aims to provide findings that are empirically robust and practically applicable for improving productivity and employee well-being in varied organizational settings.

Methodology

The aims of this study were threefold: 1) to assess the perception of the organizational climate among workers in a credit union, 2) to evaluate the self-reported productivity levels of these employees, and 3) to analyze the impact of organizational climate on labor productivity.

This research was designed as a case study employing a quantitative methodology, focusing on a prominent savings and credit cooperative located in Portoviejo, Ecuador. As one of the largest cooperatives in the city, it employs 86 staff members dedicated to managing loan operations and money collection, with annual credit placements ranging from \$95 to \$120 million over the last five years. Established in the early 1980s, the cooperative offers an extensive portfolio of financial services, including mortgage, consumer, and microenterprise loans, as well as savings, transfers, and collection services.

The case selection was motivated by a specific context: employees of the savings and credit cooperative had expressed dissatisfaction with their productivity levels, citing factors related to the organizational climate—such as internal communication and leadership dynamics—as potential causes. This issue came to light during an academic discussion when a worker from the credit union, who is also a student in a Talent Management postgraduate program, shared with the research group the challenges faced by the organization. This inspired the team to explore the situation in greater depth, identifying the credit union as an ideal environment to analyze how the work climate can influence productivity within a cultural context characterized by close interpersonal relationships and distinctive work practices in Portoviejo.

To gather data, the study utilized a questionnaire that integrated two validated instruments: the organizational climate assessment by Sashkin & Rosenbach (2013) and the self-perceived productivity scale developed by Haapakangas et al. (2018). The questionnaire comprised 40 items, organized into five sections: 1) ethical considerations, 2) demographic data, 3) organizational climate (featuring 18 statements rated on a 5-point Likert scale ranging from "strongly disagree" to "strongly agree"), 4) self-perceived productivity (with 10 similarly rated statements), and 5) three open-ended questions designed to complement the quantitative data with qualitative insights.

The organizational climate test by Sashkin & Rosenbach (2013) is a validated tool designed to assess employees' perceptions of their work environment across key dimensions such as satisfaction, communication, well-being, and motivation. This instrument uses a five-point

Likert scale, where responses range from "strongly disagree" to "strongly agree." The data collected through this scale are analyzed using simple arithmetic: numerical values are assigned to the responses (1 for "strongly disagree" to 5 for "strongly agree"), and the values corresponding to each item within a dimension are summed. This approach yields a total score for each dimension and an overall score that summarizes the perception of the organizational climate.

Similarly, the self-perceived productivity test by Haapakangas et al. (2018) evaluates individual perceptions of work performance, including aspects such as efficiency, work quality, and goal achievement. Like the organizational climate test, responses are recorded on a five-point Likert scale and analyzed by summing the numerical values assigned to the responses. This process produces an overall score reflecting the level of self-perceived productivity. Both instruments provide a straightforward and effective means of data analysis, generating scores that can be compared across dimensions or groups and correlated to explore the relationship between organizational climate and productivity. This approach facilitates the identification of patterns, strengths, and areas for improvement within the organization.

The validation of the questionnaire followed a rigorous two-stage process. Initially, the Delphi method was employed, involving consultation with seven human resource management experts from local financial institutions across two rounds of feedback. Subsequently, a pilot study was conducted with 20 employees from other cooperatives in Portoviejo to ensure the clarity, relevance, and interpretability of the questions. After confirming the instrument's robustness, it was distributed among the 86 employees engaged in key operational roles within the cooperative. A total of 39 valid responses were received, yielding a representative sample with a 90% confidence level.

Descriptive statistical analysis was conducted on the collected data, calculating measures such as mean, median, mode, range, and standard error to provide an initial overview of the sample. The Shapiro-Wilk test (González-Estrada & Cosmes, 2019) was used to evaluate data normality, and the Mann-Whitney U test (McKnight & Najab, 2010) was applied to compare distributions where appropriate. To ensure reliability, Cronbach's alpha (Brown, 2002) was calculated, confirming a high degree of internal consistency in the questionnaire items.

For the first objective, responses related to organizational climate were categorized into four principal dimensions: satisfaction, communication, well-being, and motivation. Scores for each dimension were calculated by aggregating values from the 5-point Likert scale. Regarding the second objective, a similar approach was taken. The responses from the self-perceived productivity scale were quantified, yielding an overall score for this indicator.

To address the third objective, linear regression analysis was performed to investigate the relationship between organizational climate dimensions and self-reported productivity. Given that the productivity data initially lacked normal distribution, a Box-Cox transformation (Wessa, 2021) was applied to achieve normalization. The regression analysis was conducted using the Analysis ToolPak add-on in Microsoft Excel, enabling the identification of coefficients and the statistical significance of independent variables in relation to self-perceived productivity.

The integration of validated tools provided a robust framework for examining organizational climate and productivity in a contextually specific environment. The Delphi method enhanced the instrument's relevance by incorporating expert feedback, ensuring it was well-tailored to the financial sector in Ecuador. The pilot study confirmed the comprehensibility of the

questionnaire, while the use of transformations and regression analysis facilitated a nuanced understanding of the relationship between organizational climate and productivity. These methodological choices underscore the adaptability of standardized instruments to unique local contexts, providing a replicable approach for similar studies in other settings.

Results

Data collected from the cooperative's employees offers a clear view of demographic characteristics and perceptions about organizational climate and productivity. According to the results presented in Table 1, the average age of the workers is estimated at 33.87 years, with a median and mode of 30 years. This age range suggests that most employees are young or middle-aged, which could be reflected in their adaptability and dynamism within the organization. As for age, the average is 7.05 years, while the median and mode reach 10 years. This shows that a significant segment of employees have accumulated considerable experience, which could be associated with a deep understanding of organizational dynamics and processes.

The workers' responses to the questions evaluated using the Likert scale show, in general terms, positive perceptions about the organizational climate and productivity. Aspects such as satisfaction with current work, work-life balance, open and honest communication, and the company's valuation of work obtained scores that average between 3.89 and 4.20 on a scale of 1 to 5. These results suggest that, although there are areas for improvement, employees are mostly satisfied with their work environment and perceive an active valuation of their work by the organization. Additionally, most workers reported feeling comfortable with their work environment and considered that the company offers opportunities for professional development and promotion. An inclusive environment was also reflected, where employees feel able to express themselves and work in a welcoming environment. Table 1 below summarizes these descriptive statistics.

Variable	Mean	Median	Mode	Std. Error	Max	Min
Age	33,87	30	30	1,31	51	21
Seniority	7,05	10	10	0,58	10	1
8. I feel satisfied with my current job.	4,15	5	5	0,21	5	1
9. I consider there is a good balance between my work and personal life.	4,02	4	5	0,21	5	1
10. There is open and honest communication between employees and management.	3,89	4	5	0,2	5	1
11. I feel that my work is valued by the company.	3,82	4	5	0,21	5	1
12. My supervisor provides constructive feedback.	4,05	5	5	0,21	5	1
13. There are opportunities for growth and promotion within the company.	3,97	4	5	0,2	5	1
14. I feel comfortable with the work environment and the company's physical space.	4,18	5	5	0,2	5	1
15. I feel I can be myself in the workplace.	3,97	4	5	0,21	5	1
16. There are fair and transparent systems for performance evaluation.	3,83	4	5	0,2	5	1
17. I feel motivated to meet my tasks and objectives.	4,00	4	5	0,22	5	1
18. The company takes the well-being of its employees seriously.	4,07	5	5	0,19	5	1
19. The resources and tools needed to do my job are available.	4,05	5	5	0,22	5	1
20. I feel supported by my colleagues and superiors.	4,08	4	5	0,19	5	1
21. I feel my work has a purpose and contributes to the company's success.	4,21	5	5	0,21	5	1
22. The company promotes an inclusive and diverse environment.	4,18	5	5	0,19	5	1
23. I feel I am fairly compensated for my work.	4,10	5	5	0,2	5	1
24. There is a clear code of ethics and conduct in the company.	4,20	5	5	0,22	5	1
25. I feel the company effectively manages stress and work pressure.	3,94	4	5	0,18	5	1
26. I feel capable of completing all the tasks assigned during my workday.	4,02	5	5	0,22	5	1
27. I consider myself more productive than most of my colleagues.	3,41	3	5	0,21	5	1
28. The work environment positively contributes to my productivity.	4,03	5	5	0,22	5	1
29. The workload is manageable and does not negatively affect my productivity.	3,82	4	5	0,22	5	1
30. Deadlines are realistic and contribute to maintaining high productivity.	3,92	4	5	0,22	5	1
31. The technological resources available in the company facilitate my productivity.	3,97	4	5	0,21	5	1
32. There are sufficient incentives to motivate me to be more productive.	3,95	4	5	0,19	5	1
33. The company's procedures and protocols are designed to maximize productivity.	3,87	4	5	0,18	5	1
34. I feel capable of maintaining high productivity, even when managing multiple tasks.	3,95	4	5	0,2	5	1
35. I feel there is a good balance between the quality of work and the speed required to complete tasks.	4,03	4	5	0,23	5	1

Table 1. Descriptive Statistics of the Study

The internal consistency of the questionnaire used in the study was evaluated through Cronbach's alpha coefficient, which yielded a value of 0.991. This result, extremely close to 1, indicates an almost perfect internal coherence between the items of the questionnaire, which reinforces the reliability of the measurements made. This high level of consistency implies that the questions in the questionnaire measure closely related aspects of the phenomenon studied, specifically organizational climate and productivity. This initial analysis of the data establishes a solid basis for exploring in greater detail how these variables interact and offer opportunities to improve organizational management.

Organizational Climate Measurement

The evaluation of the organizational climate in the cooperative was carried out considering four main dimensions: satisfaction, communication, well-being and motivation. Each of these dimensions was weighted equivalently, contributing 25% to the total organizational climate score. Satisfaction included items related to the evaluation of current work, transparency in evaluation systems and the perception of support from the company. For its part, the communication evaluated the openness in the channels of dialogue between employees and management, as well as constructive feedback. Well-being encompassed elements such as comfort in the work environment and work-life balance, while motivation explored perceptions of incentives, clarity of goals, and enthusiasm for work.

The results obtained in these dimensions, summarized in Table 2, show an overall organizational climate score of 82.05%, reflecting a work environment with significant positive characteristics, although not exempt from areas for improvement. The satisfaction dimension obtained the highest score (82.05%), followed by well-being (81.28%) and communication (80.17%). On the other hand, motivation registered the lowest score (78.72%), which indicates the need for greater attention in this aspect, given its direct impact on the commitment and performance of workers.

This result reflects the distance towards an ideal scenario where all employees experience levels of 100% in all the dimensions evaluated. Although the overall score is indicative of a mostly positive work environment, the motivation dimension stands out as a key area for future interventions. Strengthening elements that promote enthusiasm, clarity in work goals, and the perception of rewards could have a significant impact on the overall well-being of employees. Table 2 presents the scores obtained for each dimension of the organizational climate.

Dimensions	Satisfaction	Communication	Welfare	Motivation	Total
Score	82,05	80,17	81,28	78,72	82,05

Table 2. Dimensions of the Organizational Climate

These findings offer a basis for the cooperative to implement strategies aimed at reinforcing identified strengths, such as satisfaction and well-being, while addressing challenges related to motivation and communication. Likewise, the results provide a reference point to measure the impact of corrective actions over time, allowing strategic adjustments as organizational dynamics evolve.

Self-Reported Productivity Perception

The evaluation of the self-reported productivity of the workers of the cooperative was carried

out through a set of nine questions designed from the survey used in the study by Haapakangas et al. (2018). These questions, corresponding to items 26 to 35 of Table 1, with the exception of item 32, focused on measuring how employees perceive their own efficiency and performance in their work environment.

The analysis of the responses allowed us to obtain a percentage score of 77.83 out of 100 for self-reported productivity. This result, although positive, does not represent absolute real productivity, but offers a reference on the perception of workers regarding their performance compared to an ideal scenario. In this utopian context, all workers would report maximum levels in all the items evaluated. The score of 77.83% suggests that, although employees perceive a relatively high level of productivity, there are areas for improvement that could contribute to increasing the efficiency and effectiveness of the tasks performed.

These results reflect the usefulness of evaluating productivity from the perspective of the employees themselves, as they offer an internal view of how workers value their performance and highlight possible areas of intervention. This approach is especially relevant for identifying perceived barriers and designing strategies tailored to employees' needs and expectations. In addition, the findings provide a solid basis for the organization to make future comparisons and monitor the impact of implemented actions over time, ensuring continuous organizational development geared towards improving productivity and job satisfaction.

Relationship Between Organizational Climate and Productivity

To address the third objective of the study, a linear regression analysis was carried out with the purpose of identifying the dimensions of the organizational climate that significantly influence the self-reported productivity of workers. This approach sought not only to establish correlations, but also to explore possible causal relationships between the variables considered. Before proceeding with the regression, it was necessary to normalize the distribution of the dependent variable "productivity" by means of the Box-Cox transformation, since the initial distribution did not meet the normal requirements. Table 3 illustrates the first five observations of the data used in the model, after adjustments made.

Age	Gender	Position	Seniority	Marital Status	Health	Satisfaction	Communication	Well-being	Motivation	Box Cox Product
2	1	1	2	1	1	5,00	4,67	5,00	4,75	11,46
2	1	2	4	1	1	3,00	3,00	3,00	3,50	12,00
3	1	1	4	4	1	5,00	5,00	4,83	4,50	7,95
1	2	3	2	1	1	1,00	1,00	1,00	1,00	-
3	1	1	4	4	3	5,00	5,00	5,00	5,00	12,00

Table 3. Data Used in the Regression Model

The regression model was constructed using variables related to the dimensions evaluated in the questionnaire, as well as sociodemographic characteristics. To facilitate the analysis, qualitative variables were coded. For example, age was classified into ranges (1: under 25 years of age; 4: over 46 years of age), gender was coded as 1 for female and 2 for male, and positions were scaled from 1 to 4, with increasing values according to the hierarchical level. These encodings allow categorical factors to be integrated into the model and analyzed quantitatively. The cleaning and preparation of the data, essential in this process, ensured that the results were representative and reliable.

The results of the regression model, summarized in Table 4, show a solid fit. The multiple correlation coefficient (Multiple R) reached a value of 0.935, indicating a strong relationship between the independent variables and the dependent variable. Likewise, the adjusted coefficient

of determination (adjusted R^2) of 0.829 reflects that 82.9% of the variability in productivity can be explained by the variables included in the model. This level of fit is remarkably high and suggests that the model effectively captures key dynamics in the interaction between organizational climate and productivity.

<i>Regression Statistics</i>	<i>Column1</i>
Multiple R	0,935083024
R Square	0,874380262
Adjusted R Square	0,82951607
Standard Error	1,532242885
Observations	39

Table 4. Regression Statistics

In addition, the ANOVA analysis presented in Table 5 confirms the statistical significance of the model as a whole. With an F-value of 19.49 and an extremely low p-value (4.53E-10), it is validated that the selected independent variables have a significant effect on productivity. These results reinforce the robustness of the model and provide confidence in interpreting the findings.

<i>Column1</i>	<i>DF</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	10	457,5680806	45,75680806	19,48949086	4.53001E-10
Residual	28	65,73751128	2,34776826		
Total	38	523,3055918			

Table 5. ANOVA Analysis

Table 6 details the individual coefficients of each variable and their statistical significance. The results show that, of the variables considered, motivation is the most relevant factor, with a coefficient of 6.10 and a p-value of 1.55E-05, which positions it as a key element to explain productivity. This finding is consistent with the existing literature, which underscores the importance of motivation as a central driver of job performance. On the contrary, communication presented a significant negative coefficient of -2.83 and a p-value of 0.009, which suggests that deficiencies in communication channels or practices can negatively impact the perception of productivity.

Column1	Column2	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
	Intercept	-3,428638673	1,904527769	-1,800256593	0,082603495	-7,329886957	0,472609611	-7,329886957	0,472609611
Age	X Variable 1	-0,083146984	0,48695912	-0,17074736	0,865650308	-1,080637524	0,914343555	-1,080637524	0,914343555
Gender	X Variable 2	1,170595524	0,582433985	2,009833825	0,054173421	-0,022466411	2,36365746	-0,022466411	2,36365746
Position	X Variable 3	-0,636095738	0,426349515	-1,491958397	0,146892216	-1,509433129	0,237241652	-1,509433129	0,237241652
Seniority	X Variable 4	0,364596038	0,391165259	0,932076737	0,359264819	-0,436669672	1,165861747	-0,436669672	1,165861747
Marital status	X Variable 5	-0,148130846	0,202866108	-0,730190211	0,47133955	-0,56368323	0,267421538	-0,56368323	0,267421538
Health	X Variable 6	-0,206854394	0,469314475	-0,440758606	0,662772154	-1,168201516	0,754492728	-1,168201516	0,754492728
Satisfaction	X Variable 7	-1,379465319	1,061909392	-1,299042394	0,204525268	-3,554688101	0,795757463	-3,554688101	0,795757463
Communication	X Variable 8	-2,835744267	1,019649514	-2,781097061	0,009581105	-4,924401614	-0,74708692	-4,924401614	-0,74708692
Well-being	X Variable 9	0,74743163	1,333766782	0,560391547	0,579669109	-1,984665772	3,479529032	-1,984665772	3,479529032
Motivation	X Variable 10	6,102543515	1,170798037	5,21229394	1,55242E-05	3,704272454	8,500814576	3,704272454	8,500814576

Table 6. Regression Coefficients

It is interesting to note that other variables, such as age, position, seniority and marital status, did not show a statistically significant influence. This could reflect that the perception of

productivity is more linked to immediate organizational factors, such as motivation and communication, than to demographic or structural characteristics. This finding raises a critical reflection on the role of internal organizational management policies. While factors such as age or gender could be relevant in other contexts, the results obtained highlight that interventions aimed at improving motivation and communication could have a much more direct impact on productivity.

The results also suggest that the cooperative could benefit from a more strategic approach to managing organizational climate. For example, the strong impact of motivation underscores the need to design incentive programs aligned with employee expectations and needs. Similarly, the negative scores associated with communication indicate that it is necessary to implement strategies that strengthen the channels of dialogue between employees and management, promoting a clearer and more effective flow of information.

Finally, these findings are fundamental for strategic decision-making within the organization. By prioritizing improvements in communication and motivational mechanisms, the cooperative could not only increase productivity levels, but also promote a healthier and more sustainable organizational climate. This integrated approach would allow the organization to not only address the identified critical areas, but also build a more engaging and engaged work environment for its employees.

Discussion and Conclusion

This study addressed perceptions of organizational climate, self-reported productivity, and the factors influencing worker productivity in a savings and credit cooperative located in Portoviejo, Ecuador. The findings provide an in-depth understanding of the organization's internal dynamics, offering a foundation for critical reflection and the formulation of strategies geared toward continuous improvement.

Overall, workers in operational roles reported relatively high levels of satisfaction and productivity. However, the analysis revealed that not all employees are entirely satisfied with the organizational climate or their individual performance. Key concerns include meeting organizational goals, perceptions of unequal workload distribution, and the attitudes of some colleagues. Additionally, the presence of rumors and informal comments appears to contribute to an occasionally hostile work environment. These issues, while not severely impairing overall performance, represent critical areas for targeted intervention to enhance workplace cohesion and efficiency.

Findings on the organizational climate indicate significant positive aspects, such as open communication and perceived managerial support. Nonetheless, scores also highlight areas requiring improvement, including transparency in workload distribution and fostering interpersonal cohesion. These observations align with existing literature emphasizing the critical role of a healthy organizational climate in promoting employee satisfaction and productivity (Schein, 2010; Ravina-Ripoll et al., 2023). For the cooperative, these findings present an opportunity to implement tailored strategies to bolster strengths and address identified weaknesses, enhancing both employee well-being and organizational outcomes.

Regarding self-reported productivity, a score of 77.83 out of 100 suggests a relatively positive perception, albeit with room for improvement. This outcome is consistent with prior research that underscores the utility of self-reported productivity as an indicator, despite its tendency to reflect subjective perceptions rather than objective performance metrics (Haapakangas et al.,

2018). Nevertheless, such perceptions provide valuable insights into perceived barriers and areas where workers believe their performance can be enhanced, offering actionable information for management.

The linear regression analysis provided deeper insights into the variables impacting productivity. Motivation emerged as the most influential factor, demonstrating a statistically significant and strongly positive effect. This result corroborates existing theories that highlight the centrality of motivation in driving work performance (Espinosa-Pinos et al., 2023). Conversely, deficiencies in communication were found to significantly hinder productivity, underscoring the importance of improving communication channels and practices within the organization. This finding aligns with previous studies emphasizing the role of effective communication in fostering a cohesive and productive work environment (Ravina-Ripoll et al., 2023). Although gender did not achieve conventional levels of statistical significance, the results suggest a potential influence on productivity perceptions. This is consistent with research, such as that of Noguer-Juncà and Vallbona (2021), advocating for the integration of gender perspectives into organizational management strategies.

Despite its significant contributions, the study has notable limitations. Chief among these is the sample size, as only 39 workers participated, potentially limiting the generalizability of the findings. This limitation may stem from the sensitive nature of the topic and employees' concerns regarding confidentiality—common challenges in organizational research (Foster Thompson & Surface, 2007). Nevertheless, the study's findings remain a valuable starting point for future investigations and practical guidance for internal policy development.

From a methodological perspective, the study underscores the effectiveness of combining validated instruments, such as those developed by Sashkin and Rosenbach (2013) for assessing organizational climate and Haapakangas et al. (2018) for evaluating self-reported productivity. This integrative approach facilitated the collection of both subjective perceptions and more objective performance indicators. Future research could enrich these findings by incorporating complementary methodologies, such as in-depth interviews or longitudinal analyses, to capture more complex temporal and contextual dynamics within organizations.

In practical terms, the study's findings offer actionable insights for human resource management within the cooperative. For instance, designing targeted programs to strengthen motivation and improve communication could yield measurable improvements in employee productivity and well-being. Furthermore, initiatives to promote equitable workload distribution and mitigate the impact of rumors in the workplace could significantly enhance the organizational climate, fostering a more harmonious and collaborative work environment.

In conclusion, this study reaffirms the pivotal role of organizational climate and motivation in influencing work productivity while identifying key areas for organizational intervention. Despite its limitations, the findings provide a robust empirical foundation for future research and strategic decision-making. Further exploration of gender dynamics and strategies to sustain motivation, particularly among newer generations, will be critical for building more inclusive, productive, and sustainable work environments. By addressing these challenges, the study contributes not only to the development of the cooperative but also to advancing knowledge on organizational management within local and culturally specific contexts.

References

Akpa, V. O., Asikhia, O. U., & Nneji, N. E. (2021). Organizational culture and organizational performance:

- A review of literature. *International Journal of Advances in Engineering and Management*, 3(1), 361-372.
- Brown, J. D. (2002). The Cronbach alpha reliability estimate. *JALT Testing & Evaluation SIG Newsletter*, 6(1).
- Bustamante Vidaurre, L., Gálvez Díaz, N., & Arrunategui, P. (2023). Organizational climate and job satisfaction of nursing staff in the public health system in Peru. *Revista Venezolana de Gerencia*, 28(9), 150-161. Scopus. <https://doi.org/10.52080/rvgluz.28.e9.10>
- Castañeda-Santillán, L. L., & Sánchez-Macías, A. (2022). Job satisfaction and burnout in education workers. *Retos(Ecuador)*, 12(24), 230-246. Scopus. <https://doi.org/10.17163/ret.n24.2022.03>
- Cequea, M. M., Monroy, C. R., & Bottini, M. A. N. (2011). The productivity from a human perspective: Dimensions and factors. *Intangible Capital*, 7(2), 549-584. Scopus. <https://doi.org/10.3926/ic.2011.v7n2.p549-584>
- Çevik Taşdemir, D., Caner Akin, G., & Durmaz, Y. (2024). The effect of safety climate in workplaces on productive organizational energy of employees: A research in textile industry. *International Journal of Quality and Reliability Management*, 41(1), 42-59. Scopus. <https://doi.org/10.1108/IJQRM-09-2022-0272>
- Chen, X., Grifell-Tatjé, E., & Fu, T.-T. (2023). A profit difference decomposition model for measuring group performance: An application to Chinese and Taiwanese commercial banks. *Omega*, 120, 102899. <https://doi.org/10.1016/j.omega.2023.102899>
- Espinosa-Pinos, C. A., Acuña-Mayorga, J. M., Acosta-Pérez, P. B., & Lara-Álvarez, P. (2023). Ordinal Logistic Regression Model for Predicting Employee Satisfaction from Organizational Climate. *ECTM 2023 - 2023 IEEE 7th Ecuador Technical Chapters Meeting*. Scopus. <https://doi.org/10.1109/ETCM58927.2023.10309093>
- Foster Thompson, L., & Surface, E. A. (2007). Employee surveys administered online: Attitudes toward the medium, nonresponse, and data representativeness. *Organizational Research Methods*, 10(2), 241-261.
- González-Estrada, E., & Cosmes, W. (2019). Shapiro–Wilk test for skew normal distributions based on data transformations. *Journal of Statistical Computation and Simulation*, 89(17), 3258-3272.
- Granovetter, M. (2017). The sociological and economic approaches to labor market analysis: A social structural view. *Industries, firms, and jobs*, 187-216.
- Haapakangas, A., Hallman, D. M., Mathiassen, S. E., & Jahncke, H. (2018). Self-rated productivity and employee well-being in activity-based offices: The role of environmental perceptions and workspace use. *Building and Environment*, 145, 115-124. <https://doi.org/10.1016/j.buildenv.2018.09.017>
- Kagan, I., Hendel, T., & Savitsky, B. (2021). Personal initiative and work environment as predictors of job satisfaction among nurses: Cross-sectional study. *BMC Nursing*, 20(1). Scopus. <https://doi.org/10.1186/s12912-021-00615-1>
- Lydell, M., Hildingh, C., Söderbom, A., & Ziegert, K. (2019). How to promote workplace health in order to work into old age: Experiences from employees in an industrial setting. *Scientifica*, 2019. Scopus. <https://doi.org/10.1155/2019/3942569>
- Maqsoom, A., Khan, K., Musarat, M. A., Mubasit, H., & Umer, M. (2020). Influence of Internal Workforce Diversity Factors on Labor Productivity in Construction Projects: Empirical Evidence from Pakistan. *2020 Second International Sustainability and Resilience Conference: Technology and Innovation in Building Designs(51154)*, 1-7. <https://doi.org/10.1109/IEEECONF51154.2020.9319935>
- McKnight, P. E., & Najab, J. (2010). Mann-Whitney U Test. *The Corsini encyclopedia of psychology*, 1-1.
- Noguer-Juncà, E., & Vallbona, M. C. (2021). Gender perspective in university education: The case of bachelor's degrees in tourism in Catalonia. *International and Multidisciplinary Journal of Social Sciences*, 10(2), 81-111. Scopus. <https://doi.org/10.17583/RIMCIS.8156>

- Padilla-Lozano, C. P., & Collazzo, P. (2022). Corporate social responsibility, green innovation and competitiveness – causality in manufacturing. *Competitiveness Review*, 32(7), 21-39. Scopus. <https://doi.org/10.1108/CR-12-2020-0160>
- Ravina-Ripoll, R., Galvan-Vela, E., Sorzano-Rodríguez, D. M., & Ruíz-Corrales, M. (2023). Mapping intrapreneurship through the dimensions of happiness at work and internal communication. *Corporate Communications*, 28(2), 230-248. Scopus. <https://doi.org/10.1108/CCIJ-03-2022-0037>
- Sá, M., Ramos, C., Cánara, E., & Garcês, S. (2023). A psicologia nas organizações multiculturais. *E-Revista de Estudos Interculturais*, 2023(11). <https://doi.org/10.34630/e-rei.vi11.5337>
- Sashkin, M., & Rosenbach, W. (2013). Organizational culture assessment questionnaire. <https://pdf4pro.com/amp/view/organizational-culture-assessment-aa6ee.html>
- Schein, E. H. (2010). *Organizational culture and leadership* (Vol. 2). John Wiley & Sons.
- Thommes, K., & Klabuhn, J. (2021). Age and tenure diversity on the work floor: Evidence from a natural field experiment in production. *Evidence-based HRM*, 9(1), 95-117. Scopus. <https://doi.org/10.1108/EBHRM-04-2019-0033>
- Torrise, B. (2013). Academic productivity correlated with well-being at work. *Scientometrics*, 94(2), 801-815. Scopus. <https://doi.org/10.1007/s11192-012-0709-6>
- Wessa, P. (2021). Box-Cox Normality Plot (v1.1.13) in Free Statistics Software (v1.2.1). http://www.wessa.net/rwasp_boxcoxnorm.wasp
- Xia, L., Baghaie, S., & Sajadi, S. M. (2023). The digital economy: Challenges and opportunities in the new era of technology and electronic communications. *Ain Shams Engineering Journal*, 102411.