

E-ISSN: 3108-4176

APSSHS

Academic Publications of Social Sciences and Humanities Studies

2022, Volume 3, Page No: 208-223

Available online at: <https://apsshs.com/>

Annals of Organizational Culture, Leadership and External Engagement Journal

## Linking Ethical Leadership to Employee Creativity: The Moderating Effect of High-Intensity Telework

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### Abstract

This study aims to examine whether the extent of teleworking, measured by the number of days worked remotely, progressively shapes the causal relationship between Ethical Leadership and employee Creativity among university-educated professionals, while also considering the nature of their interaction. To address this objective, a simple moderation model was employed. Data were collected through an online survey administered to a sample of 448 employees. The results reveal a convex relationship between Ethical Leadership and Creativity, indicating that extreme perceptions of ethical conduct—either low or high—are associated with negative and positive effects on creative performance, respectively. Furthermore, higher levels of telework intensity strengthen the relationship between Ethical Leadership and the generation of original ideas. In contrast, when teleworking is limited to one day per week, the link between Ethical Leadership and Creativity becomes insignificant. Additionally, female employees report lower self-assessed levels of Creativity. Although the study adopts a cross-sectional design, the findings may be generalized to the broader Colombian energy sector, as the sample includes employees from diverse organizational levels and multiple sources. Future research should further explore the role of ethical leadership in digital and virtual work environments, particularly from an e-ethics perspective. The shift from traditional to virtual leadership models should be grounded in strong ethical principles to prevent intrusive or abusive leadership behaviors that overlook employee well-being. Moreover, organizations implementing hybrid work arrangements should recognize that minimal levels of teleworking can significantly undermine individual Creativity. Public energy organizations in developing economies, whose primary mission is to serve vulnerable populations, must remain committed to the collective good. A failure to do so may foster corruption and exacerbate social inequality. This study proposes a theoretical framework that extends existing research on Ethical Leadership by examining its effects within virtual work settings. While the advantages of ethical leadership are well established, understanding its influence in teleworking contexts is particularly critical as remote work increasingly becomes a conducive environment for enhancing employee Creativity.

**Keywords:** Ethical Leadership, Creativity, Teleworking, Telecommuting, Ethics, Curvilinear Relationship

**How to cite this article:** Horvat K, Novak L. Linking ethical leadership to employee creativity: The moderating effect of high-intensity telework. *Ann Organ Cult Leadersh Extern Engagem J.* 2022;3:208-23. <https://doi.org/10.51847/0xz7qhLcLx>

**Received:** 01 August 2022; **Revised:** 27 November 2022; **Accepted:** 27 November 2022

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### Introduction

Colombia has traditionally been characterized by an economy grounded in structured and prudent management practices, which has enabled sustained economic growth over the past 22 years alongside manageable inflation levels [1]. Nevertheless, the country is currently facing a period of political instability accompanied by an atypical rise in food prices. This situation is likely to hinder progress toward social equity and exacerbate extreme poverty. Indeed, Colombia ranks among the nations with the highest levels of social inequality worldwide, reflecting profound disparities within its population [2]. Under such exceptional historical circumstances, organizational survival has become a central concern, particularly in developing economies. The robustness of business units—supported by financial resources, long-term development strategies, and



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innovation capable of generating competitive advantages—contributes directly to the expansion of organizational human capital, which plays a crucial role in mitigating inequality [3].

Sustaining long-term economic growth, however, requires the coordinated efforts of all stakeholders [4]. Within this framework, leadership assumes a pivotal role, as leaders are responsible for aligning resources, objectives, and performance while simultaneously providing clear moral guidance [5]. An ethical leadership approach not only promotes mutual learning but also raises employee awareness through exemplary conduct, fostering discretionary behaviors oriented toward enhanced performance [3].

At the same time, contemporary organizational environments—marked by continuous change—demand creative solutions to ensure growth and maintain employment stability [6]. As a result, Creativity has become a fundamental capability for achieving organizational goals, particularly in innovation-driven sectors such as Colombia's electricity industry. Creativity encompasses the cognitive processes through which individuals collect information, evaluate ideas, and define problems, ultimately leading to the implementation of innovative solutions through observable behaviors [7]. While Creativity is influenced by individual characteristics, it is also shaped by contextual and institutional factors. Building on prior research that underscores the influence of managerial styles on Creativity, the present study focuses specifically on leadership. More precisely, it examines the role of Ethical Leadership, considering the broader implications of corporate ethics [3, 5, 8].

Ethical leaders, through morally grounded actions and proactive behaviors, cultivate social relationships that encourage positive employee attitudes. Their strong sense of social responsibility reflects a concern not only for ethical conduct but also for follower well-being. This orientation fosters a collective perception of integrity that has a meaningful impact on organizational outcomes [6].

Interest in the topic addressed by this study intensified around 2021, during one of the most critical phases of the COVID-19 pandemic. Concurrently, the Colombian electricity sector—undergoing structural transformation since 2015—initiated collective efforts to enhance financial transparency through the adoption of Ethical Leadership practices. Despite these initiatives, the actual impact of this leadership style on individual Creativity—an essential driver of growth and international expansion across Latin America—remains insufficiently understood. Simultaneously, the health crisis accelerated a profound shift in work arrangements, with Teleworking emerging as a key mechanism to ensure organizational continuity. Consequently, examining the relationship between Ethical Leadership and Creativity has become especially relevant for the sector. Moreover, understanding whether Teleworking facilitates or hinders this relationship is critical for strategic decision-making across the Colombian energy industry. The political and economic instability experienced in late 2022—characterized by heightened uncertainty, sharp increases in living costs, and unprecedented currency depreciation—has further compelled Colombian organizations to reassess their development strategies. Against this backdrop, the present study seeks to offer both theoretical and practical insights.

Although prior research has explored the influence of Ethical Leadership on Creativity, important gaps remain. Existing findings are notably inconsistent. For example, Tu *et al.* [9] report a negative association between Ethical Leadership and creative output. In contrast, other studies suggest that Creativity increases under low to moderate perceptions of Ethical Leadership but declines when leadership becomes excessively supervisory [8, 10]. These discrepancies may stem from insufficient attention to the underlying mechanisms or contextual conditions—such as mediators and moderators—that explain how, when, and why Ethical Leadership affects Creativity. Moreover, Ng and Feldman [11] argue that Ethical Leadership should be examined within its specific cultural context. Accordingly, the first objective of this study is to analyze the interaction between Ethical Leadership and Creativity within a defined national and organizational setting.

Drawing on previous work by Santiago-Torner [3], which identifies a curvilinear relationship between Ethical Leadership and Creativity mediated by work autonomy, affective commitment, and intrinsic motivation, the present study adopts a nonlinear perspective. From this viewpoint, highly benevolent and ethical leadership behaviors do not necessarily impose rigid compliance that suppresses creativity. Instead, authentic leader–follower relationships characterized by openness and trust facilitate free expression and the generation of novel ideas. Thus, high perceptions of Ethical Leadership do not inherently function as stressors that diminish originality; rather, creativity declines primarily in contexts marked by insufficient autonomy or weak supervisor–employee relationships.

Beyond this, the study expands its scope by incorporating the number of Teleworking days as a factor influencing individual Creativity. Research examining the relationship between Teleworking intensity and Creativity remains limited, with only a small number of studies identifying links between these constructs [12-16]. Consequently, the second objective of this research is to provide greater clarity regarding this association. While some scholars argue that prolonged reliance on digital platforms may weaken organizational culture and impair cognitive mechanisms essential for creativity [17], the present study adopts a broader perspective. Specifically, it posits that Teleworking enhances task control and flexibility, yielding benefits even under conditions of high job demands. Working from home can mitigate the adverse effects of workload on concentration and recovery needs, thereby improving emotional well-being and motivation, which in turn support creative performance.

The primary contribution of this study lies in examining the moderating role of Teleworking intensity in the relationship between Ethical Leadership and Creativity. This represents a novel advancement in the literature, as no prior studies have

empirically tested such a model. The underlying assumption is that increased Teleworking intensity amplifies the positive influence of Ethical Leadership on employee Creativity.

Teleworking may also generate challenges, including role ambiguity, psychological isolation, insecurity, anxiety, and work addiction [18]. In this context, Ethical Leadership promotes decentralized and autonomous work structures that enhance follower self-efficacy. Empowerment practices and continuous feedback reduce uncertainty regarding job responsibilities, while non-hierarchical leader–follower interactions encourage shared decision-making and consensus rather than authoritarian control.

Moreover, ethical leaders demonstrate genuine concern for follower well-being, thereby mitigating feelings of isolation. Psychological distance often arises when individuals perceive insufficient support or limited social interaction. Ethical leadership, through empathy and fairness, facilitates reciprocal resource exchange and fosters a balanced work environment characterized by commitment and psychological connection. Such conditions promote respect, optimism, and increased effort directed toward innovative solutions. Additionally, ethical leaders reinforce moral and relational values that enable the equitable distribution of resources, helping to prevent work overload and dependency [19].

To address these research objectives, the study adopts a quantitative, cross-sectional correlational design. The remainder of the article is organized as follows: the next section presents the theoretical framework, followed by a methodology section detailing the participants, measures, procedures, and analytical approach. The final sections report the results, discussion, conclusions, practical implications, and study limitations.

## Theoretical Framework

### *Ethical leadership and creativity*

Ethical Leadership fosters trust among organizational members, thereby creating an environment in which information can be shared openly and without barriers. Such conditions encourage risk-taking behaviors supported by strong perceptions of fairness and impartiality. Trust and idea exchange serve as fundamental pillars of psychological safety, which underpins employees' sense of well-being and facilitates the development of novel ideas [20]. Ethical leaders are therefore likely to prioritize the emotional security of their followers as a means of encouraging the expression of individual uniqueness.

Simultaneously, ethical leaders cultivate relationships with followers that are grounded in affective bonds and mutual influence [21]. These relationships are characterized by moral conduct in which trust plays a central role [22]. From the perspective of Leader–Member Exchange (LMX) theory, ethical leadership is reflected in the pursuit of reciprocal loyalty based on respect and empathy. However, leaders rarely maintain relationships of equal quality with all subordinates. Substantial variation in LMX quality can therefore undermine organizational outcomes, particularly creative performance [3]. In this regard, prior studies suggest that when ethical leadership becomes overly pronounced, it may generate an excessive emphasis on rules and norms, ultimately constraining individual Creativity [8, 10]. Under such circumstances, ethical leaders may inadvertently act as stressors, producing an inverted U-shaped relationship between leadership and creative outcomes. Conversely, Santiago-Torner [3] argues that when LMX relationships reach a mature and balanced stage, interactions between ethical leaders and followers reduce tension rather than create it, thereby promoting creative accomplishments. High levels of mutual trust transform leader–follower exchanges into partnerships characterized by shared responsibility and equality. Moreover, the qualitative features of these reciprocal interactions shape the overall quality of the exchange process. Among these features, ethical values rooted in trust are particularly influential, as they require leaders to prioritize others' interests and concerns.

Building on these arguments, a curvilinear relationship between Ethical Leadership and Creativity can be proposed. When leader–follower exchanges are weak or underdeveloped, creative performance is likely to be constrained. In contrast, high-quality interactions marked by autonomy, fairness, and mutual respect create favorable conditions for enhanced Creativity. Strong perceptions of equity and justice motivate employees to reciprocate the trust placed in them by ethical leaders through innovative and original contributions. Accordingly, the proposed nonlinear relationship adopts a convex form, in which deep and reciprocal leader–follower engagement minimizes periods of creative stagnation that may otherwise arise from disengagement or lack of motivation. Based on this reasoning, the following hypotheses are advanced:

**H1.** Ethical Leadership positively influences the Creativity of university-educated employees.

**H1.1.** The relationship between the Creativity of university-educated employees and Ethical Leadership follows a convex pattern.

### *Ethical leadership and teleworking*

Previous research has indicated that intensive Teleworking may weaken organizational commitment, heighten work–family conflict, and increase feelings of isolation, insecurity, and exclusion among employees [23]. Nevertheless, Madlock [19] contends that leadership styles balancing relational and task-oriented behaviors can offset these negative effects in virtual

work contexts, thereby enhancing employee commitment and job satisfaction. Similarly, Sahai *et al.* [24] demonstrate that psychological capital mitigates the adverse consequences of isolation by reducing negative emotional responses.

In this respect, Ethical Leadership encompasses a range of attributes that address both interpersonal relationships and task-related responsibilities. This leadership approach integrates values such as altruism, integrity, empowerment, equity, and justice—core elements long recognized within prominent leadership theories [25]. Recent empirical evidence further suggests that Ethical Leadership strengthens followers' self-efficacy, optimism, hope, and emotional resilience, effectively enhancing their psychological capital [26]. As such, Ethical Leadership inherently incorporates qualities that are critical for the effective management of virtual work environments.

Conversely, conservative leadership styles that resist change may pose risks when organizations adopt flexible structures through Teleworking [27]. Ethical Leadership therefore plays a vital role in facilitating the transition from traditional, on-site work arrangements to virtual settings. Through progressive and interconnected processes, ethical leaders can transform initial trust into authentic and enduring leader–follower relationships [28]. At the same time, their individualized consideration sustains the psychological connection necessary for effective virtual collaboration.

In general, benevolent leadership practices demonstrate genuine interest in employees' personal circumstances, encourage the sharing of resources, and cultivate social networks characterized by respect, commitment, and support. These networks promote positive collective emotions and optimistic attitudes, thereby reducing the likelihood of psychological isolation associated with Teleworking [29].

Finally, Mayo *et al.* [30] conceptualize Teleworking as a socially responsible organizational initiative. From this perspective, virtual work arrangements represent a form of Corporate Social Responsibility (CSR) directed toward employees. Ethical Leadership reinforces this approach by implementing inclusive policies and moral guidelines that prioritize employee well-being, offering flexible schedules and supporting work–family balance. Consequently, Ethical Leadership frames Teleworking not as a cost-reduction strategy, but as an ethical management practice aimed at safeguarding employees' emotional health and overall well-being [31].

### *Teleworking and Creativity*

Dutcher [32] demonstrates that Teleworking can enhance productivity in creative tasks by up to 20%, highlighting flexibility as a central driver of creative output. Reduced task and environmental structuring encourages individuals to identify optimal work settings in which divergent and dynamic thinking can flourish, thereby limiting the dominance of repetitive cognitive patterns [33]. Moreover, the absence of certain on-site distractions—such as ambient noise, frequent interpersonal interruptions, and multitasking inefficiencies—helps employees avoid fragmented attention, which in turn supports higher levels of Creativity [34].

Nouri *et al.* [35] further show that employees working independently tend to generate ideas with greater originality than those operating under close supervisory conditions. Prior research also suggests that excessive managerial control, as well as pronounced relational distance between leaders and employees, can suppress creative behavior [36].

Creativity is therefore closely associated with contextual factors that stimulate intrinsic cognitive processes. Among these, work autonomy emerges as particularly influential—often outweighing perceived support from supervisors or coworkers [37, 38]. Autonomy has been identified as a key mechanism linking Teleworking to enhanced Creativity, a relationship consistently supported by meta-analytical evidence [14, 39]. Specifically, studies indicate a positive and significant association between the extent of Teleworking and autonomy among highly educated professionals [14, 15, 39].

Drawing on social cognitive theory [40], self-efficacy functions as a critical self-regulatory mechanism shaping individual behavior. Employees who are confident in their ability to successfully complete tasks are more likely to leverage virtual work environments to enhance their creative performance [39, 41]. In addition, creative self-efficacy—a construct derived from general self-efficacy—has been identified as a particularly relevant mechanism in teleworking contexts for university-educated employees, as it strengthens their capacity to generate original ideas [14]. Empirical evidence suggests that creative self-efficacy may exert an even stronger influence on Creativity than intrinsic motivation, positioning it as a key antecedent of innovative behavior. By limiting informal communication and spontaneous social interaction, Teleworking creates an autonomy-rich environment that enhances self-regulation, facilitating cognitive flow and balance between divergent, convergent, and novel thinking processes [39].

Despite these insights, the optimal proportion of Teleworking days in relation to creative performance remains unclear. Some studies report positive associations between Teleworking and Creativity at relatively low levels of intensity, typically ranging from one to two days per week [14, 16]. More broadly, Merisalo *et al.* [42] link knowledge intensity, Teleworking, and creative activities, suggesting that remote work constitutes an intrinsic feature of jobs that stimulates Creativity among university-educated employees.

At the same time, Teleworking alters the balance between job demands and resources. Sardeshmukh *et al.* [15] find that remote work reduces work pressure and role conflict while increasing autonomy. However, these benefits are accompanied by heightened role ambiguity, diminished perceived support, and reduced opportunities for feedback in virtual settings.

Within this context, Ethical Leadership plays a critical compensatory role. By clarifying job roles and expectations, ethical leaders reduce work-related stress and enhance perceived support [43]. Through social exchange mechanisms articulated in LMX theory, ethical leaders foster continuous reciprocal interactions in which feedback becomes a central channel for communication [44]. As such, Ethical Leadership may offset the negative consequences of Teleworking identified by Sardeshmukh *et al.* [15]. Supporting this view, Lee *et al.* [45] show that ethical leaders alleviate employees' emotional exhaustion, reinforcing the notion that Ethical Leadership constitutes a valuable resource in remote work environments.

Finally, a large-scale meta-analysis by Gajendran and Harrison [13], encompassing nearly 13,000 employees, demonstrates that high-intensity Teleworking enhances autonomy, reduces work–family conflict, and improves job satisfaction, performance, and role stress. Similarly, Biron and van Veldhoven [12] find that intensive Teleworking increases employees' capacity for sustained concentration while reducing recovery time. Taken together, these findings suggest that Ethical Leadership—by maximizing the advantages of virtual work and mitigating its drawbacks—becomes increasingly effective in fostering Creativity as Teleworking intensity rises. Accordingly, the following hypotheses are proposed:

**H2.** The number of Teleworking days positively affects the Creativity of university-educated employees.

**H3.** The number of Teleworking days moderates the positive relationship between Ethical Leadership and the Creativity of university-educated employees.

**H3.1.** Increasing Teleworking intensity progressively strengthens the positive influence of Ethical Leadership on the Creativity of university-educated employees.

## Methodology

### *Participants*

The sample comprised 448 employees (273 men and 175 women) drawn from six organizations within the Colombian electricity sector, located in major cities including Bogotá, Medellín, Pereira, Manizales, and Cali. A probabilistic cluster sampling approach was employed due to the geographically dispersed nature of the industry. The primary selection criterion involved targeting cities that account for over 90% of teleworking employees in the sector. Given an estimated population of approximately 20,000 workers and a confidence level of 95%, the recommended minimum sample size was slightly below 400 participants; this threshold was exceeded in the present study. Sample size calculations were conducted using STATA statistical software.

Data collection took place on different days and within designated spaces selected by each organization. Participants were chosen to represent four organizational groups: support staff, analysts, middle managers, and senior executives.

Demographically, 82% of respondents were under the age of 50, 60% held postgraduate degrees, 81% were employed under permanent contracts, and 63% had more than four years of organizational tenure—nearly 40% of whom reported over ten years of service. Regarding occupational roles, 69% were analysts, 17% support staff, 9% middle managers, and 5% directors. Additionally, 42% reported having no children, while 39% were responsible for caring for elderly dependents. A majority of respondents (69%) owned their homes, 84% reported outstanding debt, and 51% belonged to higher socioeconomic strata. In terms of lifestyle factors, 39% reported sleeping fewer than six hours per night, and 65% did not share their household with other teleworkers. Notably, 64% expressed a preference for Teleworking over traditional face-to-face work arrangements.

Age and organizational tenure were measured using six categorical ranges, while job position and daily rest time were captured through four-option categorical scales. Binary variables were used to assess parental status and caregiving responsibilities. Socioeconomic status was measured using Colombia's official six-level classification system.

### *Instruments*

#### *Control variables*

Consistent with prior research [46], organizational tenure and gender were included as control variables. Employees with greater familiarity with organizational norms may find Teleworking easier to manage. Tenure was measured using a categorical scale beginning at less than one year. Gender was coded as 0 for men and 1 for women.

#### *Extent of teleworking*

Teleworking intensity was assessed using a single-item measure following established methodological recommendations [47]. Participants were asked: "On average, how many days per week do you work from home?" Responses were recorded on a five-point scale.

#### *Ethical leadership*

Ethical Leadership was measured using the unidimensional scale developed by Brown *et al.* [48], consisting of ten items and demonstrating high internal consistency (Cronbach's  $\alpha = .94$ ). The scale was originally designed with seven response options,

including a neutral midpoint, and was adapted following Santiago-Torner [3] using a six-point Likert format. The instrument assesses the extent to which organizational leadership is perceived as ethical and grounded in trust-based relationships with followers.

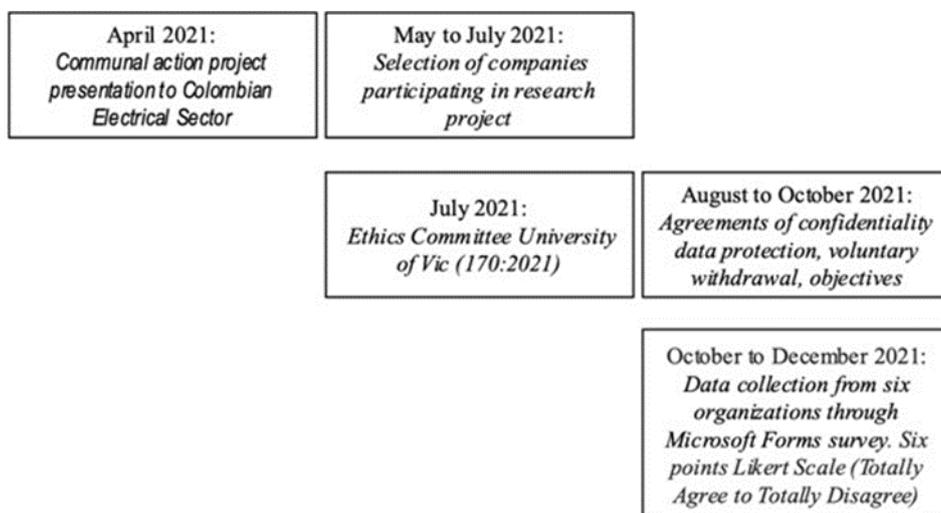
### *Creativity*

Employee Creativity was measured using the unidimensional scale developed by Oldham and Cummings [49], comprising three items ( $\alpha = .90$ ). This scale has been applied in previous research using a seven-point Likert format [14], yielding reliability coefficients of  $\alpha = .82$ . The measure captures the extent to which employees contribute original ideas that generate organizational benefits by influencing products or processes.

### *Procedure*

The research procedure was conducted in accordance with the stages outlined in **Figure 1**. Participants required approximately forty minutes to complete the survey. Throughout the data collection process, a designated member of the research team remained available to address questions and clarify any uncertainties.

At the outset, participants were provided with a brief introduction lasting approximately ten minutes, during which the objectives of the study were explained. Emphasis was placed on the importance of carefully reading each item to ensure thoughtful and accurate responses. Participants were also informed of their right to withdraw from the study at any time and were assured of the confidentiality and anonymity of all data collected.



**Figure 1.** Research process

### *Data analysis*

The analysis began with descriptive statistics and the calculation of Pearson correlation coefficients for all study variables (**Table 1**). Subsequently, the convergent and discriminant validity of the constructs included in the proposed model were assessed, and the internal consistency of the measurement instruments was verified through Cronbach's alpha coefficients (**Table 2**).

Next, moderation analyses were conducted using multiple regression techniques with the PROCESS macro for SPSS (version 3.5; Igartua & Hayes [50]), as reported in **Table 3**. A simple moderation model (Model 1) was specified to examine whether the extent of teleworking moderated the relationship between Ethical Leadership and Creativity. The analyses were performed using a 95% confidence interval and 10,000 bootstrap resamples.

To reduce potential multicollinearity issues, all predictor variables were mean-centered prior to analysis by subtracting the sample mean from each observed value. As a result, all Variance Inflation Factor (VIF) values remained below the recommended threshold of 10, indicating no serious multicollinearity concerns. This approach is recognized as an effective strategy for minimizing statistical distortions caused by high correlations among predictors [51].

Finally, the Johnson–Neyman procedure was applied to identify regions of statistical significance, specifically highlighting the effect of Ethical Leadership on Creativity at selected values of the moderating variable (teleworking extent), particularly at levels 2, 3, and 5.

## **Results**

### *Descriptive Statistics and Bivariate Correlations*

**Table 1** summarizes the number of items for each scale, along with their means, standard deviations, and bivariate correlation coefficients. Gender showed no significant association with organizational tenure or perceptions of Ethical Leadership. However, it was significantly related to both teleworking extent and Creativity.

Specifically, the negative correlation between gender and Creativity ( $r = -.246, p < .01$ ) indicates differences in self-assessed creative performance between men and women, an issue examined in greater detail in subsequent analyses. Gender was also modestly associated with the number of teleworking days ( $r = .104, p < .05$ ).

Organizational tenure was positively related to individual Creativity ( $r = .112, p < .05$ ) and perceptions of Ethical Leadership ( $r = .165, p < .01$ ). In addition, tenure exhibited a significant positive relationship with teleworking extent ( $r = .219, p < .01$ ). These findings suggest that longer tenure is linked to stronger recognition of Ethical Leadership practices and greater acceptance of teleworking arrangements.

Furthermore, Ethical Leadership was positively associated with both teleworking extent ( $r = .124, p < .05$ ) and Creativity ( $r = .249, p < .01$ ). Finally, teleworking extent demonstrated a positive and gradual influence on individual Creativity ( $r = .166, p < .01$ ). Collectively, these latter associations constitute the most salient findings of the study, as they directly support the proposed relationships among Ethical Leadership, teleworking intensity, and creative performance.

**Table 1.** Standard deviations, Means, and intercorrelations among the study variables (n = 448), with 95% confidence intervals

Constructs	N	M	SD	(1)	(2)	(3)	(4)
Gender	1	1.39	.488				
Seniority	1	3.58	1.839	.037			
Ethical Leadership	10	51.62	4.230	-.049	.165**		
Teleworking Extent	1	29.81	3.82	.104*	.219**	.124**	
Creativity	3	14.32	2.560	-.246**	.112*	.249**	.166**

Correlations marked with a single asterisk are statistically significant at  $p < 0.05$ , while those indicated with two asterisks are significant at  $p < 0.01$ . Source: authors' own elaboration.

**Table 2** presents the results for discriminant and convergent validity. Regarding composite reliability, the critical ratio (CR) values exceed the recommended threshold ( $> 1.96; p < 0.05$ ) established by Hair *et al.* [52]. All composite reliability indices (CFC) are above 0.70, as are the corresponding Cronbach's alpha coefficients, indicating satisfactory internal consistency and adequacy of the measurement scales [52].

Additionally, the Average Variance Extracted (AVE) values range from 0.54 to 0.70, accounting for between 54% and 70% of the variance in the constructs. Higher AVE values reflect stronger representation of the latent variables. Discriminant validity, assessed following the criterion proposed by Fornell and Larcker [53], is confirmed, as the square root of each construct's AVE exceeds its correlations with other constructs across all cases.

**Table 2.** Convergent Validity, Discriminant Validity and Reliability

	ALPHA <sup>1</sup>	CR <sup>2</sup>	CFC <sup>3</sup>	AVE <sup>4</sup>	DV <sup>5</sup>
Ethical Leadership	.91	> 1.96	.880	.540	.730
Creativity	.88	> 1.96	.920	.700	.840

Source: Self-prepared. 1. Critical Coefficients; 2. Cronbach's alpha; 3. Average Variance Extracted; 4. Composite Reliability; 5. Discriminant Validity.

Hierarchical multiple regression analyses were employed to test the proposed hypotheses and examine the moderating effects. To control for individual-level influences on Creativity, the regression models were specified in stages. In the first step, gender and organizational tenure were entered as control variables. The second step incorporated the main effects of Ethical Leadership and the number of Teleworking Days. In the final step, the interaction term between Ethical Leadership (X) and Teleworking extent (W) was introduced.

**Table 3** reports the unstandardized regression coefficients obtained using the PROCESS macro, together with their respective confidence intervals. The coefficient of determination ( $R^2$ ) reflects the overall fit of the regression model, which accounts for approximately 22% of the variance in the dependent variable, Creativity ( $R^2 = .215, F = 30.61, p < .01$ ). Each regression estimate was evaluated based on its  $p$ -value and the lower and upper limits of the confidence interval (LLCI, ULCI). When zero falls within the confidence interval, the corresponding effect is considered non-significant.

The empirical findings support all the hypothesized relationships. First, Ethical Leadership exhibits a significant and positive effect on Creativity (H1;  $b = .36, p < .001, 95\% \text{ CI } [.32, .76]$ ). Second, Teleworking Days show a significant and positive direct effect on Creativity (H2;  $b = .83, p < .008, 95\% \text{ CI } [.16, .42]$ ). Third, Teleworking extent significantly moderates the relationship between Ethical Leadership and Creativity (H3;  $b = .022, p < .002, 95\% \text{ CI } [.01, .04]$ ). Furthermore, the conditional effects analysis (H3.1) indicates that low (2 days), medium (3 days), and high (5 days) levels of Teleworking progressively strengthen the positive association between Ethical Leadership and Creativity. These results suggest that increasing Teleworking intensity enhances individual creative performance when supported by an ethical leadership approach. Finally, hypothesis H1.1, proposing a convex relationship between Ethical Leadership and Creativity, is confirmed and

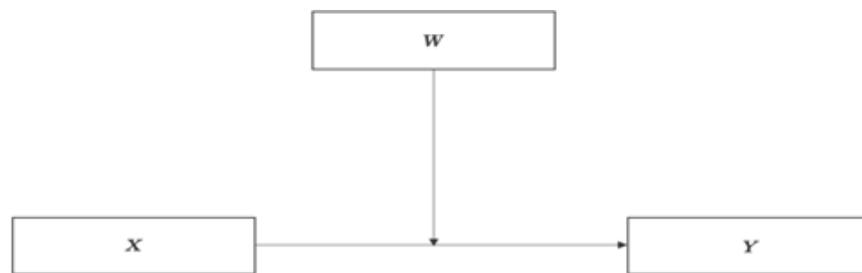
illustrated in **Figure 7** ( $r^2 = .14, p < .001$ ). High perceptions of Ethical Leadership foster individual Creativity through trust-based interactions, constructive feedback, and high-quality leader–follower exchanges, thereby encouraging shared goals and greater effort to achieve innovative outcomes.

**Table 3.** Outcomes of the moderation analysis for the LIE1–C2 model, with Teleworking Days as the moderating variable (W), reported with 95% confidence intervals (CI) ( $R^2 = .215; f^2 = .395$ , high;  $n = 448$ )

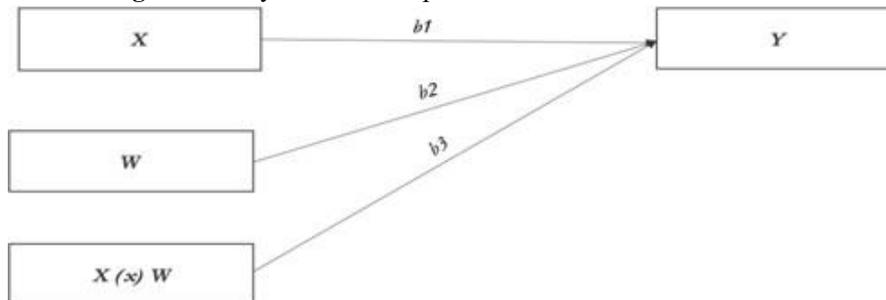
Effect Description	Path	$\beta$	p	t	ES	LLCI	ULCI
Control variable: Gender	—	-.727	.001	-4.296	.169	-1.060	-.3944
Control variable: Organizational seniority	—	.109	.018	3.374	.046	.0190	.2007
Ethical Leadership → Creativity	$b_1$	.360	.001	4.147	.268	.3217	.7632
Teleworking Days → Creativity	$b_2$	.834	.008	3.492	.304	.1562	.4221
Ethical Leadership × Teleworking Days → Creativity	$b_3$	.022	.002	3.152	.008	.0121	.0392
Conditional effect at low teleworking intensity (2 days)	—	.042	.001	3.471	.012	.0181	.0657
Conditional effect at medium teleworking intensity (3 days)	—	.060	.001	5.646	.011	.0394	.0812
Conditional effect at high teleworking intensity (5 days)	—	.097	.001	4.863	.021	.0562	.1386

General note. (1) Creativity ;(2) Ethical Leadership. Effect size thresholds are defined as  $f^2 > .02$  (low),  $f^2 > .15$  (medium), and  $f^2 > .35$  (high). Source: authors’ own elaboration.

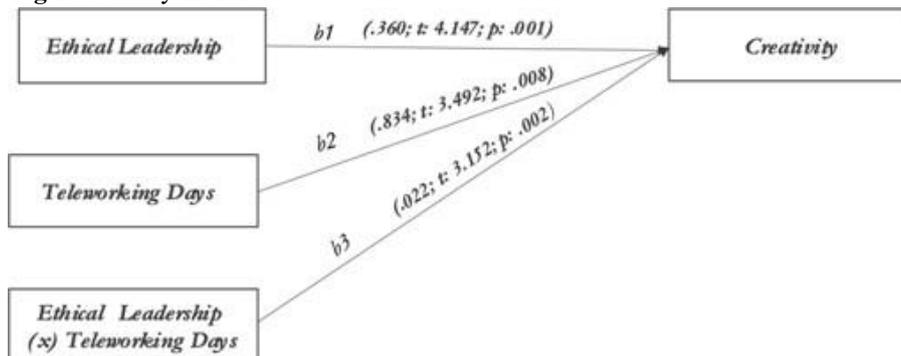
**Figures 2, 3, and 4** illustrate the proposed model from both conceptual and empirical perspectives. Specifically, **Figure 4** displays the regression coefficients estimated for each of the variables included in the analysis.



**Figure 2.** Study model: Conceptual scheme. PROCESS MODEL 1

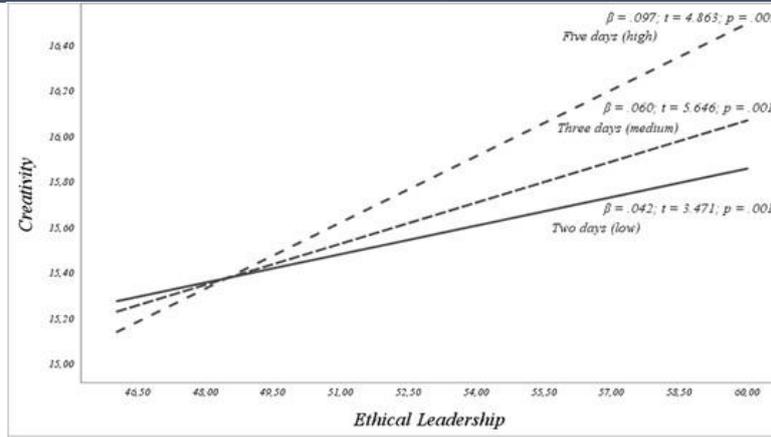


**Figure 3.** Study model: Statistical scheme. PROCESS MODEL 1



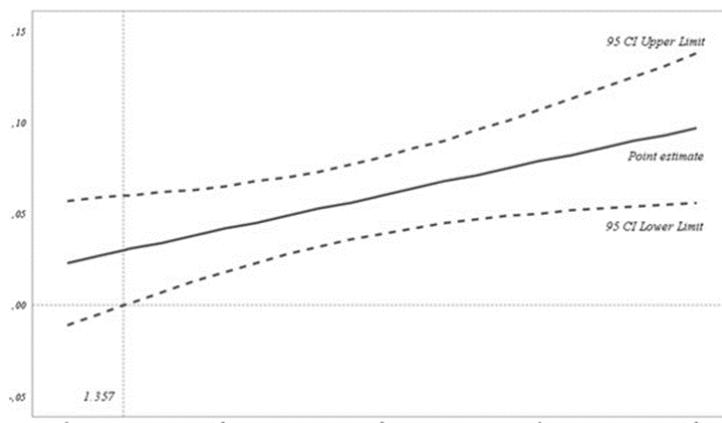
**Figure 4.** Results of regression analysis with the PROCESS macro (statistical diagram)

**Figure 5** illustrates the interaction (moderation) effect of Teleworking extent on the relationship between Ethical Leadership and Creativity. Through the pick-a-point technique, the PROCESS macro generates three representative values of the moderating variable based on the mean score plus and minus one standard deviation. These values correspond to (1) a low level of Teleworking extent (−.96), (2) a medium level (.00), and (3) a high level (.96). Overall, the findings indicate that Ethical Leadership is associated with progressively higher levels of individual Creativity as the number of Teleworking Days increases from low to high.

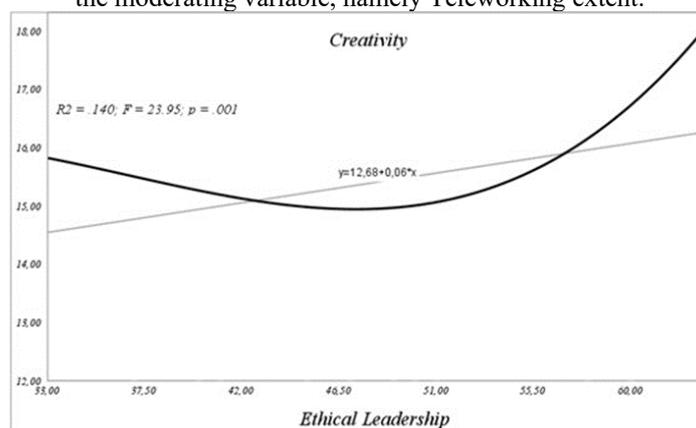


**Figure 5.** Visual depiction of the moderating role of Teleworking extent (low, medium, and high levels) in the relationship between Creativity and Ethical Leadership.

By applying the Johnson–Neyman procedure, **Figure 6** identifies the range of statistical significance in which the conditional variable (W) influences the association between the independent variable (X) and the dependent variable (Y). This significant region is shown in the upper-right quadrant of the figure. The results indicate that the effect of Ethical Leadership on Creativity—illustrated by the point estimate line—becomes statistically significant when the number of Teleworking Days exceeds 1.36. Notably, 86.21% of the participants fall above this threshold. Accordingly, the relationship between Ethical Leadership and Creativity depends on Teleworking intensity, with its strength increasing progressively as Teleworking Days rise. Finally, **Figure 7** illustrates the convex form of the relationship between Creativity and Ethical Leadership.



**Figure 6.** Graphical illustration of the conditional influence of Ethical Leadership on Creativity across varying levels of the moderating variable, namely Teleworking extent.



**Figure 7.** Representation of the convex association between Ethical Leadership and Creativity.

**Figures 8 and 9** present three clearly differentiated patterns: (1) males report higher levels of self-perceived Creativity, a difference that becomes more pronounced as the intensity of Teleworking increases; (2) limiting Teleworking to a single day per week noticeably constrains individual creative performance; and (3) overall, greater Teleworking intensity is associated with higher levels of Creativity.

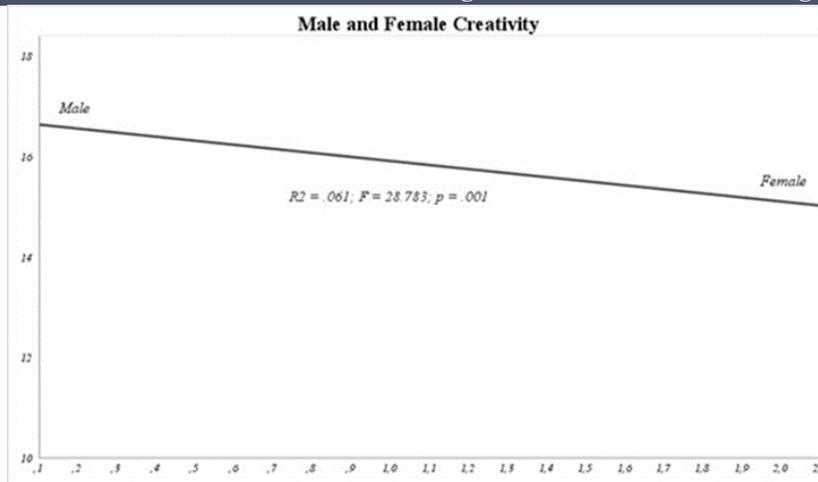


Figure 8. Gender-based differences in perceived Creativity (male vs. female).

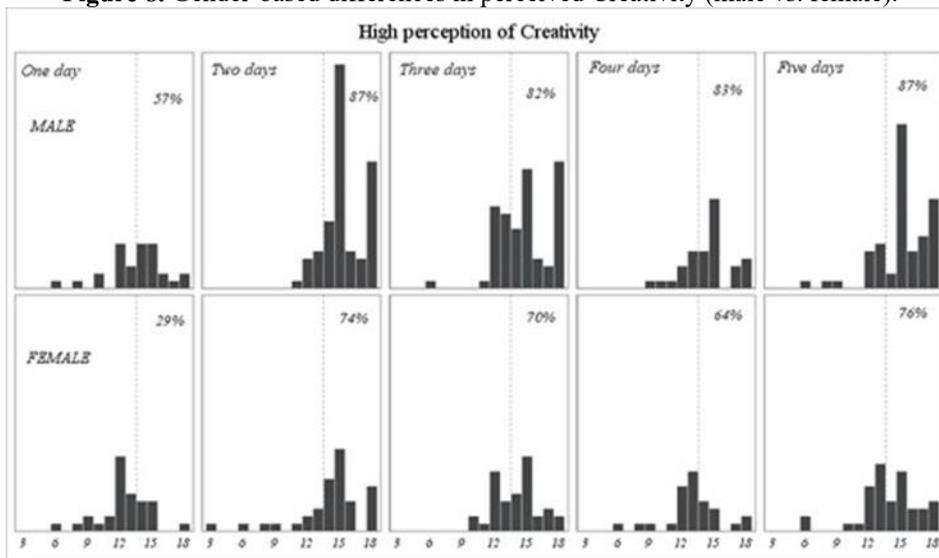


Figure 9. Perceived Creativity by gender across different levels of Teleworking Days.

Figure 10 allows for two complementary interpretations. First, restricting Teleworking to one day per week weakens the positive impact of Ethical Leadership, as leadership styles grounded in interaction and trust require time to be internalized by employees. Second, perceptions of Ethical Leadership remain more consistent among male employees, irrespective of changes in the number of Teleworking Days.

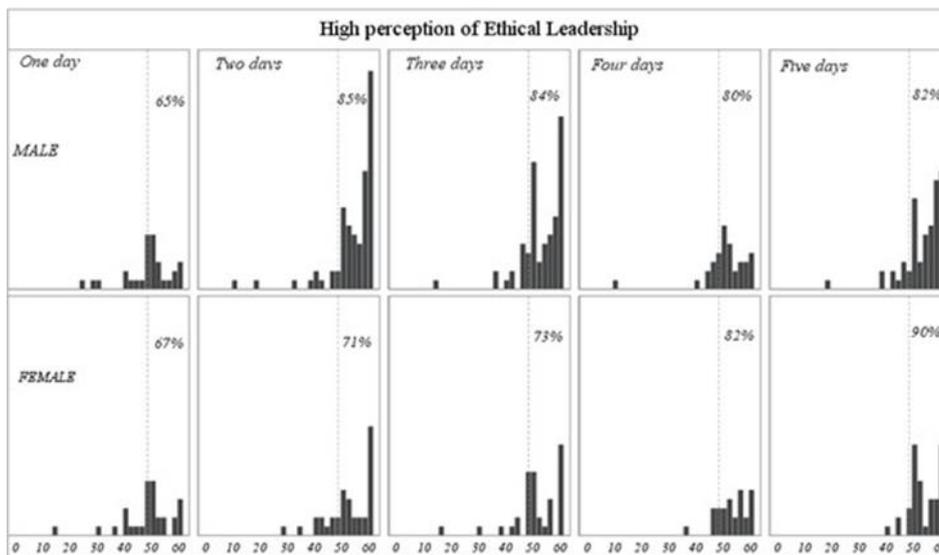


Figure 10. Perceived Ethical Leadership across Teleworking Days by gender (male–female)

Results Discussion

This study offers a novel contribution to the literature examining the link between Ethical Leadership and Creativity by empirically testing multiple hypotheses. First, the findings confirm a significant association between Ethical Leadership and Creativity, aligning with previous research [5, 54, 55].

The results demonstrate that Ethical Leadership directly enhances individual Creativity, supporting the notion that leadership behaviors grounded in moral values help construct organizational environments conducive to creative outcomes. Accordingly, creative performance is shaped not only by leaders' ethical conduct but also by the broader industrial climate, which acts as a contextual factor fostering openness and idea generation through integrity and trust [5]. A balanced work environment encourages followers to take risks, while ethical leaders project approachability and positivity, activating social exchange processes that facilitate creative expression.

In this regard, Sammy [56] highlights Ethical Leadership as particularly relevant in virtual work contexts, where supervision is limited and autonomy is sustained through trust-based relationships. Emotional reliance on employees' goodwill represents a substantial qualitative shift in organizational dynamics, often resulting in shared efforts that manifest as innovative ideas. Followers tend to trust leaders when there is coherence between expected and observed behavior. Moreover, the transparent communication promoted by ethical leaders is especially valuable in remote settings, as it creates opportunities for collaboration and innovation [54]. Given that creative initiatives inherently involve exposure and vulnerability, ethical leaders cultivate inclusive and psychologically safe environments that support autonomy and emotional security [55].

The second hypothesis supported by this research is the existence of a convex relationship between Ethical Leadership and Creativity (**Figure 7**). This finding partially supports Santiago-Torner [3] while diverging from the inverted U-shaped pattern proposed by Feng *et al.* [10] and Mo *et al.* [8].

An updated interpretation of Leader–Member Exchange (LMX) theory helps explain this alternative configuration and extends prior findings [3]. LMX theory conceptualizes leader–follower relationships as exchanges oriented toward shared objectives, with relationship quality ranging from low to high depending on the level of mutual exchange [57]. Ethical Leadership establishes a distinctive bidirectional dynamic characterized by mutual trust and trustworthiness [44]. This leadership approach facilitates high-quality LMX both at individual and team levels while minimizing differentiation among followers [58]. Increasingly, organizations favor horizontal interaction structures in which feedback flows multidirectionally—among supervisors, peers, and subordinates. In such contexts, continuous feedback and emotional bonds built on mutual support create optimal conditions for the circulation of ideas through sustained social exchange [3].

As a result, a strong perception of Ethical Leadership does not generate a negative inflection point through excessive moral rigidity, as suggested by Feng *et al.* [10]. Instead, it reinforces social values such as honesty, service orientation, justice, and respect within a trusting framework that stimulates creative engagement [3]. Ethical leaders do not seek to constrain divergent thinking; rather, they promote psychological safety and credibility through consistent positive interactions that foster close interpersonal connections. Consequently, high ethical expectations tend to unite followers around shared goals, enhancing rather than inhibiting creative performance [59].

Conversely, when the quality of the LMX relationship is low, ethical leadership may fail to prevent rigidity and resistance to change. Martin *et al.* [58] describe insufficient LMX as a source of counterproductive performance. Under such conditions, followers may perceive unfairness or lack of support, leading them to suppress creativity through passive or conformist behavior. Supporting this view, Goncalo and Duguid [60] argue that dissatisfaction creates pressure that extends beyond mere task difficulty, fostering psychological disengagement from the group and hindering the generation and expression of novel ideas.

The third hypothesis confirmed by this study indicates that the number of Teleworking Days positively affects individual Creativity. This result aligns partially with earlier findings [13, 15, 42] while differing from studies that examined Teleworking limited to one day per week [14, 39]. The present findings show no meaningful relationship between low-intensity Teleworking and Creativity (**Figure 6**).

Highly educated employees often engage in tasks requiring multitasking or rapid task-switching. Kapadia and Melwani [61] suggest that such multitasking can enhance Creativity by simultaneously activating cognitive capacity and flexibility. However, workplace distractions hinder information processing and retention [14]. Teleworking therefore creates an environment that minimizes distractions and increases autonomy—both critical factors for creative improvement [34]. Dutcher [32] further demonstrates that tasks requiring deep concentration and novelty are more productive in virtual contexts. Additionally, Teleworking reduces time pressure and role conflict [15], while moderate time pressure is associated with higher Creativity [62]. Role ambiguity, by contrast, undermines creative expectations and increases stress [63]. Rodríguez-Modroño [64] offers a nuanced view of high-intensity Teleworking, highlighting skill development, adaptation, and increased commitment while reducing job-related demands. Recent evidence also links organizational commitment to enhanced Creativity [65]. Collectively, these findings underscore a strong association between Teleworking intensity and individual Creativity.

The fourth and fifth hypotheses confirm that Teleworking Days moderate the Ethical Leadership–Creativity relationship and that this moderating effect strengthens progressively as Teleworking intensity increases. These results address a significant gap in the literature, as no comparable models were identified in prior research.

Ethical Leadership challenges the traditional assumption that effective leadership depends on physical proximity. Its characteristics align naturally with electronic leadership (e-leadership) models [27], supporting less hierarchical structures that foster trust-based relationships while maintaining genuine concern for employee well-being.

More broadly, e-leadership enhances performance in Teleworking contexts by reducing perceived distance between employees and organizations. Achieving this requires leaders to actively promote idea exchange and prioritize trust as a central mechanism in the continuous flow of information that generates creative solutions [66]. Ethical Leadership is particularly effective in this regard, as it emphasizes interpersonal interaction and clarifies employees' organizational roles while safeguarding their well-being [29, 43]. Ethical leaders regard trust as the cornerstone of sincere and enduring relationships built on shared psychological safety [28]. As shown in **Figure 10**, Ethical Leadership becomes an increasingly valuable resource as Teleworking Days rise, helping to counteract challenges such as limited feedback and emotional exhaustion [45], thereby fostering higher creative performance.

Finally, although not included in the formal hypotheses, the results indicate that male employees report higher self-perceived Creativity than female employees (**Figures 8 and 9**). Stoltzfus *et al.* [67] suggest that societal role expectations may limit women's inclination toward unconventional thinking, a hallmark of Creativity. Proudfoot *et al.* [68] further note that female managers are often stereotyped as less creative by superiors. Traits traditionally associated with male stereotypes—such as assertiveness and independence—may influence creative self-perception, whereas female stereotypes emphasize cooperation and organizational support. In the present sample, this difference may also be explained by occupational distribution: 56% of female respondents work in support roles, compared to 36% of men, positions that may demand fewer creative solutions.

## Conclusions

Ethical leaders foster organizational environments characterized by trust and psychological safety, which activate essential processes such as interpersonal communication and the open exchange of viewpoints. This fair and inclusive approach strengthens interaction between leaders and followers, contributing to the development of robust relational bonds. Such relational quality facilitates a continuous flow of valuable information, encouraging sustained effort and enabling the achievement of shared goals through innovative and original solutions.

Rather than imposing rigid or unattainable moral standards, shared ethical principles generate perceptions of justice and unbiased relationships. These perceptions enhance, rather than hinder, creative outcomes, giving rise to a convex U-shaped relationship between Ethical Leadership and Creativity. The complexity of this interaction is not adequately captured by linear models. Close supervision, when embedded in trust-based relationships, does not discourage followers from engaging in complex problem-solving activities. On the contrary, frequent and constructive feedback plays a dual moderating role: it alleviates unnecessary emotional strain and prevents relational deterioration. Consequently, mature leader–follower relationships exert a cumulative and progressive effect that strengthens creative performance. Moreover, this trust-based structure can be disseminated across the organization through aligned leadership practices at multiple hierarchical levels.

Conversely, prolonged supervision lacking emotional connection can become detrimental, undermining employee Creativity and helping explain the inverted U-shaped relationships identified in prior studies, particularly within certain Eastern cultural contexts. When emotional distance between leaders and followers is deliberately maintained, an ethical leadership approach becomes impracticable. Thus, meaningful proximity and high-quality interpersonal interactions are not exclusively dependent on physical presence.

Within this framework, Teleworking and its intensity magnify the positive influence of Ethical Leadership on individual Creativity. Virtual work environments are especially advantageous for highly educated employees, as they provide increased autonomy and reduce workplace distractions. These conditions enhance the authenticity of leader–follower exchanges by prioritizing mutual interest and trust. Furthermore, the multiplicity of tasks inherent in remote work stimulates Creativity through parallel cognitive processes that enhance employees' adaptive capacities.

### *Practical implications*

Colombia is experiencing significant change regarding the participation of professional women in knowledge-based roles. Nevertheless, persistent biases continue to limit their access to high-value organizational areas, including innovation. Recruitment and selection processes must therefore challenge gender-based stereotypes. Attributes such as autonomy, self-confidence, perseverance, and boldness are individual characteristics and should be evaluated independently of gender.

Organizational training initiatives designed to promote Ethical Leadership can yield substantial competitive advantages. First, the shift from traditional to electronic leadership requires strong ethical foundations to prevent the emergence of intrusive or abusive leadership styles that neglect employee well-being. Ethical Leadership facilitates shared governance with followers,

which in virtual contexts reduces fatigue through more efficient and purposeful meetings. Additionally, ethical leaders promote participation through ongoing interaction and reciprocal feedback, thereby mitigating isolation. This leadership style also supports a culture of boundary management, reducing the negative spillover effects of remote work on family and personal life.

Effective use of digital technologies is likewise essential to enhance Creativity. Synchronous virtual meetings, supported by the trust established through Ethical Leadership, enable open brainstorming without fear of judgment or negative repercussions. Furthermore, technology eliminates geographical barriers, fostering collaboration between organizations and academic institutions and creating shared environments that promote innovation and creative development.

Finally, when implementing hybrid work models that combine remote and on-site arrangements, organizations should carefully consider the findings of this study. Very low-intensity Teleworking—limited to one day per week—significantly diminishes individual Creativity.

### *Limitations*

The primary limitation of this study lies in its cross-sectional design, which captures data at a single point in time. Nonetheless, the sample includes participants from the country's major cities, enhancing data diversity and reducing the common limitation of single-source bias. This geographic breadth supports broader generalization of the findings within the Colombian context. Social desirability bias was also mitigated by ensuring respondent anonymity and emphasizing the importance of honest responses at the outset of data collection.

Despite these strengths, longitudinal research is necessary to replicate and extend the present findings and to more rigorously test the proposed hypotheses over time. Additionally, the observed gender differences in self-perceived Creativity highlight an important avenue for future research aimed at further examining and understanding this disparity. Finally, future studies may expand on the role of e-ethics within Ethical Leadership, particularly in increasingly digital and remote organizational environments.

**Acknowledgments:** None

**Conflict of interest:** None

**Financial support:** None

**Ethics statement:** None

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