# Transformational Leadership and Team Psychological Capital as Capabilities for Innovation Readiness in Honduran Workplaces

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***Abstract*– Organizations in emerging economies face persistent uncertainty, resource constraints, and mounting pressure to innovate, conditions that place growing importance on the psychological capacities that allow teams to adapt, learn, and respond creatively to change. This study examines whether transformational leadership is associated with employees' Perceived Team Psychological Capital (PTPC), understood here as an intangible, team-referent resource that is theoretically relevant to team adaptability and innovation readiness. A cross-sectional survey was administered to 284 employees across multiple organizational sectors in Honduras, recruited through non-probability convenience sampling with snowball dissemination. Confirmatory factor analysis and structural equation modeling were conducted in jamovi 2.7.12 using robust maximum likelihood estimation with Huber-White standard errors and Yuan-Bentler scaled statistics. A higher-order structural model showed good fit (CFI = .963, TLI = .956, RMSEA = .045, SRMR = .038). Transformational leadership was strongly associated with PTPC ($\beta = .624$, $p < .001$), accounting for 39.0% of its variance; the association remained stable ($\beta = .623$, $p < .001$, $R^2 = .399$) after adjusting for contract status and tenure, whereas a single-factor alternative model showed markedly poorer fit (CFI = .767, RMSEA = .133). Because the design is cross-sectional and innovation outcomes were not measured, the results document an association rather than a causal effect, and the innovation-readiness interpretation of PTPC remains conceptual. From an underrepresented Central American context, the findings are consistent with the proposition that transformational leadership is linked to psychological resources plausibly relevant to more adaptive teams in emerging economy workplaces.***

***Keywords*-- Transformational leadership; team psychological capital; innovation readiness; organizational capabilities; emerging economies***

## I. Introduction

Organizations operating in emerging economies face persistent uncertainty, resource constraints, competitive pressure, and an increasing need to innovate in order to remain viable. Under these conditions, organizational capacity to adapt and innovate depends not only on technological infrastructure, capital, or strategic planning, but also on the human and psychological capacities that allow teams to interpret change, sustain effort, and respond creatively to unfamiliar demands. This perspective is consistent with Positive Organizational Behavior (POB), a framework that treats measurable and developable psychological strengths as strategically relevant organizational resources rather than as secondary or purely individual attributes [1].

Leadership is one of the primary organizational mechanisms through which such capacities have been theorized to develop. Among leadership approaches, transformational leadership—characterized by inspirational motivation, intellectual stimulation, and individualized consideration—has been proposed as particularly relevant for building psychological resources that support adaptive functioning [2]. Rather than treating transformational leadership solely as a driver of individual motivation or satisfaction, the literature has framed it as a possible capability-building mechanism: an organizational pathway through which teams' psychological resources for facing uncertainty and change may be strengthened. The present study does not test that pathway directly; it examines whether transformational leadership is associated with team-referent perceptions of those resources at a single point in time.

This study focuses on employees' Perceived Team Psychological Capital (PTPC), defined as individual, team-referent perceptions of collective efficacy, hope, resilience, and optimism [3], [4]. These four resources can be interpreted as intangible capabilities: collective efficacy reflects confidence in the team's capacity to execute demanding tasks; collective hope reflects goal-directed persistence and the identification of alternative pathways; collective resilience reflects the team's capacity to recover from setbacks; and collective optimism reflects positive expectations about future outcomes. Together, these perceived resources may help teams sustain adaptive functioning, tolerate ambiguity, and remain engaged in problem-solving and innovation-related tasks, even though they were assessed here as individual, team-referent perceptions rather than as an aggregated team-level construct.

Despite growing scholarly interest in team-level psychological resources and their relevance for organizational adaptation and innovation, empirical evidence linking transformational leadership to PTPC remains limited, particularly outside North American, European, and East Asian contexts. Latin American and Central American organizational environments, where firms often operate under resource constraints, institutional volatility, and rapid change, remain markedly underrepresented in this literature.

This study examines the association between transformational leadership and PTPC among employees from multiple organizational sectors in Honduras, an underrepresented Central American context. From the perspective of LEIRD's interest in entrepreneurship, innovation, and regional development, the study contributes empirical evidence on the association between leadership and the perceived psychological resources that have been theoretically linked to adaptive, innovation-ready teams in an emerging economy. Innovation behavior and outcomes were not measured; that link is therefore advanced as a conceptual interpretation rather than as an empirical demonstration.

## II. Theoretical Background

### A. Team Psychological Capital as an Intangible Capability

Psychological Capital (PsyCap) was originally conceptualized as a higher-order individual resource composed of self-efficacy, hope, resilience, and optimism, consistently associated with performance, engagement, and adaptive coping [1]. Extensions of this framework to team and collective contexts propose that employees also form perceptions regarding whether their teams, as functioning units, display confidence, goal-directed persistence, adaptive recovery, and positive expectations [3], [4]. Collective efficacy in particular has demonstrated relevance for team functioning, performance, and resilience [5], providing theoretical grounding for broader conceptions of team-level psychological resources.

In this study, Perceived Team Psychological Capital (PTPC) refers specifically to employees' individual, team-referent perceptions of these four resources, rather than to an aggregated or emergent team-level construct. Establishing a genuinely collective psychological state would require nested designs, evidence of within-team agreement, and multilevel aggregation [6]; the present cross-sectional, individual-level design does not support such claims. Nonetheless, team-referent perceptions remain conceptually and practically relevant: they capture how employees evaluate the psychological capacities available within their immediate work environment, and they can be interpreted as intangible resources conceptually aligned with adaptive team functioning, tolerance for ambiguity, sustained problem-solving, and readiness to engage with innovation-related demands. This alignment is conceptual: it is not established by the present data, which contain no direct measure of innovation.

### B. Transformational Leadership as a Proposed Capability-Building Mechanism

Transformational leadership, as conceptualized by Bass and Riggio [2], describes leader behaviors that move followers beyond narrow self-interest toward shared goals through idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. These dimensions have been theorized as organizational mechanisms for capability building. Inspirational motivation—communicating a compelling and motivating vision—may strengthen shared direction and collective confidence, resources closely aligned with collective hope and optimism. Intellectual stimulation—encouraging critical thinking and openness to new ways of working—may support collective efficacy by reinforcing teams' confidence in generating creative solutions to work-related problems. Individualized consideration—attending to followers' developmental needs—may support perceptions of team resilience by reinforcing that difficulties are addressed constructively rather than experienced as destabilizing. These proposed processes are theoretical expectations; the cross-sectional evidence reported below can speak only to whether the corresponding perceptions covary.

Social Cognitive Theory [7] offers a coherent explanation for these associations: efficacy-related beliefs are shaped through social modeling, verbal persuasion, and vicarious learning, processes strongly enacted through supervisory behavior. Supervisors are therefore salient social referents whose communication and support may shape how employees interpret the psychological capacities of their teams. Meta-analytic evidence identifies transformational leadership as one of the strongest antecedents of individual PsyCap [8], and related evidence links leadership behavior with emotional and motivational processes relevant to psychological functioning at work [9]. However, comparatively little evidence has examined whether this leadership style is also associated with team-referent perceptions of these resources, a gap noted in recent scoping work on team psychological capital [10]—an important omission given that leadership-development initiatives are often intended to build team-level, not merely individual, capacities.

### C. Leadership and Innovation-Ready Teams in Emerging Economies

In emerging economies, organizations frequently operate with limited resources, volatile institutional conditions, and accelerated demands for change, placing added importance on teams' psychological capacity to adapt. Under such conditions, psychological resources such as those captured by PTPC have been described as human-capital-based resources that may help organizations compensate for structural constraints and sustain adaptive and innovation-related functioning. Team-level psychological resources have been associated with team positivity, performance, learning, knowledge creation, and innovation in prior research [11]–[14], suggesting that PTPC may be conceptually relevant to innovation readiness, even though direct innovation outcomes were not measured in the present study.

Honduras represents an underrepresented Central American context in this literature. Although PsyCap has demonstrated structural validity across diverse national settings [15], evidence from Central American workplaces remains scarce. Examining transformational leadership and PTPC in this setting contributes evidence relevant to regional development through organizational capability building, extending a literature that has been concentrated in North American, European, and East Asian contexts.

### D. Hypothesis

H1. Transformational leadership is positively associated with employees' Perceived Team Psychological Capital.

Consistent with the cross-sectional design, H1 is stated and tested as an association. The capability-building account summarized above is the theoretical frame that motivates the hypothesis, not a claim the design can evaluate: the data support statements about covariation between transformational leadership and PTPC, not about causal direction, temporal precedence, or the development of capabilities over time.

## III. Method

### A. Study Design and Participants

This study employed a quantitative, observational, cross-sectional, correlational design. Data were collected through an anonymous online survey administered between January and April 2026 among employees in Honduras. Participants were recruited through a non-probability convenience sample with

snowball dissemination via professional networks and social media: an initial set of professional contacts was invited to complete the questionnaire and to forward the link within their own work-related networks, so the resulting sample reflects the composition and reach of those chains rather than a defined sampling frame of the Honduran workforce. Eligibility required participants to be at least 18 years old, currently employed, and resident in Honduras. Participation was voluntary and contingent on electronic informed consent.

An initial pool of 406 responses was screened for data quality using criteria defined before analysis. Responses were excluded for excessively long completion times (> 714 s, Q3 + 1.5 × IQR; n = 24), implausibly short completion times (< 180 s; n = 94), and incomplete submissions (n = 4), yielding a final analytic sample of N = 284. The 180-s threshold was set a priori in relation to the length of the questionnaire. The instrument presented an informed-consent screen, a demographic block, and 18 substantive Likert items referring to the respondent's supervisor and work team; completing it in less than 180 s implies well under 10 s per substantive item once consent and demographic questions are accounted for, which is below the time required to read a team-referent statement and retrieve the corresponding judgment, and is a pattern conventionally treated as an indicator of careless or non-attentive responding in self-administered online surveys. The criterion nevertheless removed a substantial share of the initial pool (23.2%), and it is possible that some attentive but fast-reading respondents were excluded along with inattentive ones; this trade-off is addressed in Section VI. Participants averaged 33.6 years of age (SD = 9.31; range 18–62), with a near-balanced gender distribution (50.4% male, 49.6% female). Employees represented public, private, and non-governmental sectors, across administrative, customer-service, sales, production, and technical-professional roles.

The study protocol was reviewed and approved by the institutional research ethics committee of the Universidad Tecnológica de Honduras prior to data collection. Data collection followed recommendations for cross-sectional survey research, and participation was voluntary, anonymous, and contingent on electronic informed consent. No personally identifying information was collected, and no incentives were offered for participation.

### *B. Measures*

Transformational leadership was assessed with an original six-item instrument grounded in Bass and Riggio's model [2], covering inspirational motivation, intellectual stimulation, and individualized consideration. Content validity was evaluated by three independent experts in organizational psychology and psychometrics using Lynn's binary-scoring procedure [16]; all items attained an item-level content validity index (CVI) of 1.00 and a scale-level CVI of 1.00, exceeding the .90 threshold recommended for adequate content validity [17]. Items used a 5-point Likert scale.

Perceived Team Psychological Capital (PTPC) was assessed with a 12-item measure covering collective efficacy, collective hope, collective resilience, and collective optimism (three items each), worded with team-referent phrasing (e.g., "In my team…", "As a team…"). PTPC is interpreted as an individual-level perception referring to the team, not as an aggregated collective construct, since no multilevel design or within-group agreement analysis was conducted. Items used a 5-point Likert scale.

### *C. Statistical Analysis*

Analyses were conducted in jamovi 2.7.12. Given evidence of non-normality, structural equation models were estimated using maximum likelihood with robust Huber-White standard errors and Yuan-Bentler scaled test statistics [18]. Model fit was evaluated using scaled CFI, TLI, RMSEA, and SRMR, with CFI/TLI ≥ .95, RMSEA ≤ .06, and SRMR ≤ .08 indicating good fit [19]. Transformational leadership was specified as a latent construct with six indicators; PTPC was specified as a second-order latent construct reflected in the four first-order dimensions. A single residual covariance was specified between CPC4 and CPC5. Both items belong to the collective hope dimension and refer to the team's capacity to identify alternative courses of action when an initial plan does not succeed; their wording therefore shares specific content that the first-order hope factor does not represent, and their residuals would not be expected to be independent. The covariance was freed on this substantive basis rather than on fit improvement alone, in line with recommendations that correlated residuals be specified only when the indicators involved share content or method variance and belong to the same first-order construct [19], [20]. No other post-hoc modifications were introduced, and no cross-loadings or between-construct residual covariances were freed. A supplementary adjusted model included permanent contract status and organizational tenure as covariates of PTPC. A single-factor alternative model, loading all indicators onto one common factor, was estimated to assess common method variance [20]. Associations are interpreted descriptively, not causally.

## IV. Results

### *A. Descriptive Statistics and Bivariate Associations*

Transformational leadership showed M = 3.96 (SD = 0.91); PTPC showed M = 4.28 (SD = 0.70), with pronounced negative skewness (skewness = −2.29, kurtosis = 8.73), reflecting a concentration of favorable team perceptions (Table I). Transformational leadership and PTPC were strongly correlated (Pearson r = .602, 95% CI [.522, .671], p < .001; Spearman ρ = .618, p < .001).

TABLE I
*Descriptive Statistics, Reliability, and Convergent Validity Indicators*

| Construct / Dimension | M | SD | α | ω | AVE |
|---|---|---|---|---|---|
| Transformational Leadership | 3.96 | 0.91 | .932 | .933 | .698 |
| Perceived Team Psych. Capital (overall) | 4.28 | 0.70 | — | — | — |
| Collective Efficacy | — | — | .900 | .909 | .769 |

| | | | | | |
|---|---|---|---|---|---|
| Collective Hope | — | — | .919 | .868 | .746 |
| Collective Resilience | — | — | .938 | .939 | .836 |
| Collective Optimism | — | — | .931 | .931 | .817 |

*Note. N = 284. M = mean; SD = standard deviation; α = Cronbach's alpha; ω = McDonald's omega; AVE = average variance extracted. Pearson r = .602, 95% CI [.522, .671]; Spearman ρ = .618; both p < .001, between transformational leadership and PTPC. Reliability and AVE for the higher-order PTPC factor were not provided by the software output.*

### *B. Structural Model*

The hypothesized second-order structural model showed good fit: scaled $\chi^2(129) = 205$, $p < .001$, CFI = .963, TLI = .956, RMSEA = .045 [.036, .054], SRMR = .038 (Table II, Fig. 1). Standardized loadings ranged from .731–.891 for transformational leadership indicators, and from .805–.942 across the four PTPC first-order dimensions. All four dimensions loaded strongly onto higher-order PTPC: collective efficacy β = .882, collective hope β = .982, collective resilience β = .976, collective optimism β = .973. Transformational leadership was strongly associated with PTPC, β = .624, 95% CI [.492, .757], $p < .001$, explaining 39.0% of its variance ($R^2$ = .390), consistent with H1. Because the design is cross-sectional, β is interpreted as a standardized association and not as an estimated effect of leadership on PTPC.

TABLE II
*Fit Indices for the Hypothesized, Single-Factor, and Adjusted Models*

| Model | $\chi^2$ (df) | CFI | TLI | RMSEA [95% CI] | SRMR |
|---|---|---|---|---|---|
| Hypothesized higher-order model | 205 (129)*** | .963 | .956 | .045 [.036, .054] | .038 |
| Single-factor alternative model | 808 (135)*** | .767 | .736 | .133 [.126, .139] | .114 |
| Adjusted model (+ covariates) | 264 (163)*** | .959 | .953 | .047 [.038, .055] | .041 |

*Note. N = 284. CFI = comparative fit index; TLI = Tucker-Lewis index; RMSEA = root mean square error of approximation; SRMR = standardized root mean square residual. Structural path (hypothesized model): TL → PTPC β = .624 [.492, .757], $R^2$ = .390. Adjusted model: TL → PTPC β = .623 [.490, .756], $R^2$ = .399; permanent contract β = .060, p = .145 (ns); higher tenure β = .074, p = .098 (ns). ***p < .001.*

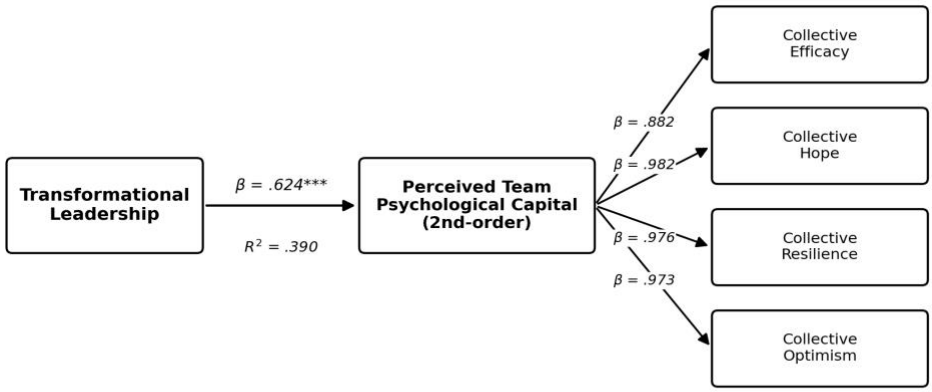



Fig. 1. Structural model of transformational leadership predicting Perceived Team Psychological Capital (PTPC), specified as a second-order latent construct. *** p < .001.

### *C. Single-Factor Alternative and Adjusted Models*

A single-factor alternative model, loading all leadership and PTPC indicators onto one factor, fit the data poorly ($\chi^2(135) = 808$, $p < .001$; CFI = .767; TLI = .736; RMSEA = .133; SRMR = .114; Table II), suggesting the structural association is unlikely to be explained solely by common method variance, although this possibility cannot be fully excluded given the single-source design.

A supplementary adjusted model including permanent contract status and organizational tenure retained good fit ($\chi^2(163) = 264$, $p < .001$; CFI = .959; TLI = .953; RMSEA = .047 [.038, .055]; SRMR = .041). The association between transformational leadership and PTPC remained virtually unchanged, β = .623, 95% CI [.490, .756], $p < .001$, $R^2$ = .399. Neither permanent contract status (β = .060, p = .145) nor tenure (β = .074, p = .098) was significantly associated with PTPC, indicating the leadership association is robust to these employment conditions.

### *D. Reliability and Convergent Validity*

Reliability and average variance extracted (AVE) were adequate across constructs (Table I): transformational leadership (α = .932, ω = .933, AVE = .698), collective efficacy (α = .900, ω = .909, AVE = .769), collective hope (α = .919, ω = .868, AVE = .746), collective resilience (α = .938, ω = .939, AVE = .836), and collective optimism (α = .931, ω = .931, AVE = .817).

## V. Discussion

### *A. Interpreting the Leadership–PTPC Association*

Transformational leadership was strongly associated with PTPC, a pattern consistent with the proposition that leadership is among the organizational conditions related to how

employees evaluate their teams' psychological capabilities. Employees who perceived stronger transformational leadership also tended to perceive their teams as more efficacious, hopeful, resilient, and optimistic. Given the cross-sectional design, this pattern does not establish that leadership produces PTPC, and the reverse ordering is equally compatible with the data: employees in teams they already regard as capable and resilient may also evaluate their supervisors more favorably, and a third factor such as organizational climate may shape both judgments. What the findings support is that these perceptions covary strongly in this sample, in a direction consistent with theoretical accounts of leadership as a social referent for efficacy-related beliefs [2], [7].

Several mechanisms may help explain this association. Communicating clear objectives, establishing priorities, aligning plans with concrete actions, and providing support during implementation may reduce ambiguity and strengthen employees' confidence that the team can complete demanding tasks. Inspirational motivation may therefore be most consequential when a shared vision is translated into attainable goals, responsibilities, resources, and methods of work rather than remaining at the level of motivational discourse. Recognition of progress and confidence-building communication may also reinforce positive expectations, particularly when teams face uncertainty or setbacks.

Intellectual stimulation may contribute to PTPC when employees are encouraged to examine problems critically, consider alternative scenarios, and propose new solutions without assuming that every unsuccessful attempt will be penalized. Under these conditions, errors can be interpreted as opportunities for learning rather than as evidence of team incapacity. This interpretation is consistent with Social Cognitive Theory, because leaders can provide verbal persuasion, model constructive responses to difficulty, and create experiences through which employees evaluate their team as capable of identifying alternative pathways and recovering from disruption [7]. Individualized consideration may complement these processes by signaling that difficulties will be addressed through developmental support rather than through blame or abandonment.

The magnitude of the explained variance also indicates that leadership is important but does not exhaust the determinants of PTPC. Communication quality, team cohesion, organizational culture, working conditions, resource availability, and shared experiences of collaboration may also influence whether employees perceive their teams as psychologically strong. These factors were not examined in the present model and should therefore be treated as plausible complementary conditions rather than as demonstrated explanations.

### *B. PTPC and Its Theoretical Link to Innovation Readiness*

PTPC combines confidence in collective competence, the capacity to identify alternative pathways, recovery after setbacks, and positive expectations regarding future performance. These resources are conceptually relevant to teams required to adapt, solve unfamiliar problems, and sustain effort under uncertainty. Interpreted through this lens, PTPC can be read as an intangible resource conceptually aligned with innovation readiness rather than as a merely favorable psychological evaluation of the team [11]–[14]. The alignment is theoretical: innovation behavior, innovation-related outputs, and any objective indicator of team adaptation were outside the scope of the measurement design, so PTPC is best described here as a candidate antecedent of innovation readiness awaiting direct empirical test.

The strong loadings of collective hope, resilience, and optimism suggest that perceived readiness involves more than confidence in performing existing tasks. It also includes the belief that the team can revise unsuccessful plans, maintain goal-directed effort, and continue functioning after difficulty. These perceptions may be especially relevant for innovation-related activities, which frequently involve ambiguity, experimentation, delayed results, and the possibility of failure. Transformational leadership may be related to this readiness by connecting organizational vision with opportunities to test new strategies, technologies, or methods and by legitimizing collaborative problem-solving, although the present design cannot establish that sequence.

Nevertheless, psychological readiness should not be equated with actual innovation. A team may perceive itself as capable, hopeful, and resilient while lacking the financial resources, technological infrastructure, decision authority, time, or institutional support required to implement new ideas. PTPC may therefore be better understood as a potentially enabling condition whose practical expression depends on complementary organizational resources and structures. Because innovation behavior and outcomes were not directly measured, the present findings support only a theoretically grounded interpretation of innovation readiness, not evidence that the teams were objectively more innovative.

### *C. Emerging Economy Relevance*

The findings contribute evidence from Honduras, a setting that remains underrepresented in research on transformational leadership and team-referent psychological resources. In organizational environments characterized by resource constraints, institutional uncertainty, uneven infrastructure, or rapidly changing demands, employees may rely heavily on proximal leadership practices to interpret whether their teams possess the capacity to respond effectively. Clear coordination, timely decision-making, constructive communication, and support during implementation may become particularly salient when teams face operational disruptions or limited organizational slack.

In the Honduran context, teams may encounter disruptions associated with transportation, climatic events, security conditions, personnel turnover, organizational restructuring, or changes in institutional priorities. These contextual pressures were not measured and cannot be assumed to characterize all participants or organizations. However, they illustrate why perceptions of collective resilience and the capacity to identify alternative pathways may have practical relevance in environments where continuity cannot always be taken for granted.

The stability of the leadership–PTPC association after adjusting for permanent contract status and tenure further suggests that employees' ongoing experiences of leadership may be more closely related to their perceptions of team psychological resources than these two employment characteristics. This does not imply that contract stability or tenure are unimportant. Rather, within this sample, neither variable contributed significantly once transformational leadership was considered. One plausible interpretation is that day-to-day experiences of communication, coordination, support, and problem-solving provide more immediate cues for evaluating team capability than formal employment status alone.

From a human-capital perspective, leadership development may constitute a comparatively accessible strategy for strengthening adaptive team functioning in emerging economies [15]. However, describing leadership as a low-cost capability-building mechanism requires caution. Leadership practices cannot substitute for adequate salaries, manageable workloads, sufficient staffing, safe working conditions, or access to essential technological and material resources. Their value may lie in helping organizations use existing resources more coherently and constructively, not in compensating indefinitely for structural deficiencies.

### *D. Practical Implications*

Leadership-development initiatives should focus on observable practices that support team capability rather than on motivational communication alone. Supervisors should be trained to translate organizational vision into priorities, realistic goals, resource decisions, and clear methods of implementation. They should also strengthen collective confidence by recognizing progress, providing actionable feedback, and supporting timely decision-making during periods of difficulty.

Organizations seeking more adaptive teams should create conditions in which intellectual stimulation does not become an additional source of pressure. Employees need clear decision criteria, opportunities to discuss alternative solutions, and reasonable tolerance for unsuccessful attempts when these occur within responsible experimentation. Collaborative review of problems and lessons learned may strengthen perceptions that the team can recover, adjust its strategy, and continue pursuing shared objectives.

PTPC may also be useful as a diagnostic indicator of how employees perceive their teams' preparedness for change. However, it should not be treated as a direct measure of innovation performance. Assessments of PTPC should be combined with indicators of resource availability, organizational support, decision autonomy, learning climate, and actual innovation behavior. In Honduran organizations, a practical priority may be to integrate leadership training with communication of organizational vision and collaborative problem-solving, ensuring that strategic aspirations are translated into concrete routines through which teams can learn, adapt, and respond constructively to uncertainty.

## VI. LIMITATIONS

Several limitations qualify these findings. The cross-sectional design precludes causal inference: leadership perceptions and team-referent perceptions were measured simultaneously, so the association is compatible with leadership shaping PTPC, with PTPC shaping evaluations of leadership, and with common antecedents. Both variables were self-reported at a single time point by a single source, raising the possibility of common method variance, although the poor fit of the single-factor model partially mitigates this concern.

Sampling imposes the most consequential constraints on generalization. Recruitment combined non-probability convenience sampling with snowball dissemination through professional networks and social media, which has two implications. First, there is no sampling frame and no known probability of selection, so the sample cannot be treated as representative of employees in Honduras and the estimates should not be read as population parameters. Second, chain-referral recruitment reproduces the composition of the initial contacts' networks: participants are likely concentrated in urban, formally employed, digitally connected segments of the labor market, while micro-enterprises, rural workplaces, and the informal sector—which accounts for a large share of Honduran employment—are likely underrepresented, as are workplaces without structured supervisory relationships. Homophily within referral chains may also restrict variability in the leadership experiences observed, and self-selection may favor employees with more articulated or more favorable views of their supervisors and teams, a possibility consistent with the pronounced negative skewness of PTPC reported above. The magnitude of the leadership–PTPC association may therefore differ in organizations and worker groups these chains did not reach. Findings should be read as evidence from a segment of Honduran formal employment rather than from Honduran workplaces as a whole; establishing representativeness would require probability-based or organization-based sampling with identified teams and documented response rates.

Data screening also warrants caution. The a priori exclusion of responses completed in under 180 s removed 94 of 406 cases (23.2%), a substantial proportion. The threshold was chosen to protect against careless responding given the length of the instrument, but it is a heuristic rather than a validated cut-off, and it may have removed attentive respondents who read quickly together with inattentive ones. Because screening preceded analysis, systematic differences between excluded and retained cases cannot be ruled out. Future studies should preregister screening rules, report sensitivity analyses comparing filtered and unfiltered samples, and complement time-based screening with embedded attention checks and response-pattern indices.

Finally, measurement and model specification impose limits. PTPC was measured as an individual, team-referent perception rather than as an aggregated collective construct; no within-team agreement or multilevel analysis was conducted, and teams were not formally identified. Both instruments were developed for this study and require further validation in independent samples. The structural model included one residual covariance between two collective-hope items; although justified by content overlap, freed residuals capitalize on sample-specific information and require replication.

Innovation behavior and outcomes were not measured, so the innovation-readiness interpretation of PTPC is theoretical rather than empirically demonstrated. Future research should adopt longitudinal, multisource, and multilevel designs with formally identified teams, and should include direct indicators of innovation behavior alongside measures of resource availability and organizational support.

## VII. Conclusion

This study provides evidence that transformational leadership is strongly associated with employees' perceptions of team efficacy, hope, resilience, and optimism in Honduran organizations. From a LEIRD perspective, these perceived psychological resources can be understood as intangible resources conceptually aligned with teams' capacity to adapt, solve problems, and engage in innovation-related processes. The cross-sectional design precludes causal inference, innovation outcomes were not measured, and the non-probability sample does not represent the Honduran workforce; the innovation-readiness reading of PTPC is therefore a theoretical interpretation rather than a demonstrated result. Within these boundaries, the findings identify leadership practice as a plausible and practically accessible focus for organizations seeking to strengthen the psychological resources that adaptive, innovation-oriented work requires in emerging economy workplaces, and they provide a baseline from which longitudinal and multilevel studies in Central America can proceed.

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## APPENDIX

Table A1 lists the survey items for the transformational leadership and Perceived Team Psychological Capital (PTPC) scales. Items were originally developed and administered in Spanish; English wording is provided for reporting purposes. All items used a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

TABLE A1

*Transformational Leadership and PTPC Scale Items*

| Code | Item (English) | Dimension |
|---|---|---|
| L1 | My leader communicates a clear and motivating vision for the team's future. | Inspirational Motivation |
| L2 | My leader inspires me to give my best at work. | Inspirational Motivation |
| L3 | My leader promotes new ideas to improve the way we work. | Intellectual Stimulation |
| L4 | My leader encourages critical thinking when facing work-related problems. | Intellectual Stimulation |
| L5 | My leader demonstrates enthusiasm and commitment to the team's objectives. | Inspirational Motivation |
| L6 | My leader cares about the professional development of team members. | Individualized Consideration |
| CPC1 | In my team, we trust in our capacity to perform our assigned work well. | Collective Efficacy |
| CPC2 | As a team, we feel capable of tackling difficult or demanding tasks. | Collective Efficacy |
| CPC3 | In my team, we believe we have the necessary skills to achieve our objectives. | Collective Efficacy |
| CPC4 | When obstacles arise, my team looks for different ways to achieve our goals. | Collective Hope |
| CPC5 | In my team, we usually find alternatives when a plan is not working. | Collective Hope |
| CPC6 | As a team, we maintain our focus on objectives despite difficulties. | Collective Hope |
| CPC7 | After facing problems or mistakes, my team manages to recover quickly. | Collective Resilience |
| CPC8 | My team learns from difficulties and continues working with greater strength. | Collective Resilience |
| CPC9 | Even in adverse situations, my team manages to keep moving forward. | Collective Resilience |
| CPC10 | In my team, we tend to expect positive results when we work hard. | Collective Optimism |
| CPC11 | My team believes that work challenges can be overcome through joint effort. | Collective Optimism |
| CPC12 | In general, my team maintains a positive outlook on the future of our work. | Collective Optimism |

*Note. PTPC = Perceived Team Psychological Capital. L1–L6 = transformational leadership items; CPC1–CPC12 = PTPC items (collective efficacy: CPC1–CPC3; collective hope: CPC4–CPC6; collective resilience: CPC7–CPC9; collective optimism: CPC10–CPC12).*