

The Mediating Role of Cognitive Reframing Between Psychological Capital and Leadership Adaptability in African Organizations

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Abstract— Background: Psychological capital (PsyCap) has been linked to positive leadership outcomes, yet the mechanisms underlying its relationship with leadership adaptability in African organizational contexts remain underexplored. This study examines cognitive reframing as a mediator in this relationship.

Methods: A quantitative, cross-sectional survey was conducted with 245 mid- to senior-level managers from Nigeria, Kenya, Ghana, and South Africa. Participants completed validated measures of PsyCap, cognitive reframing, and leadership adaptability. Data were analyzed using hierarchical regression and mediation analysis with bootstrapping (PROCESS Model 4) to test the indirect effect.

Results: PsyCap was a strong positive predictor of leadership adaptability ($\beta = .53, p < .001$). Mediation analysis confirmed that cognitive reframing significantly mediated this relationship (indirect effect $\beta = .28, 95\% \text{ Boot CI } [.18, .40]$). The direct effect of PsyCap remained significant, indicating partial mediation.

Conclusion: This research provides robust empirical evidence that cognitive reframing is a key psychological process through which PsyCap enhances a leader's adaptability. This mechanism, the study offers a clear, process-oriented blueprint for developing more agile and resilient leadership in complex African business environments.

Index Terms—Psychological capital, cognitive reframing, leadership adaptability, mediation, African organizations.

I. INTRODUCTION

In an era marked by volatility, uncertainty, complexity, and ambiguity (VUCA), organizational

leaders are increasingly required to demonstrate adaptability the capacity to adjust their strategies, behaviours, and mindsets in response to changing environmental demands (Atanassova et al., 2024). This is particularly pertinent within the African organizational context, where leaders must navigate unique challenges including infrastructural constraints, socio-political dynamics, cross-cultural teams, and rapidly evolving markets (Enslin & Grobler, 2025; Lerutla & Steyn, 2025). Within such settings, leadership adaptability is not merely a desirable trait but a critical determinant of organizational survival and growth.

Psychological Capital (PsyCap), a higher-order construct comprising hope, efficacy, resilience, and optimism (Luthans et al., 2018), has emerged as a significant positive resource in workplace psychology. Meta-analytic evidence consistently links PsyCap to desirable outcomes such as job performance, satisfaction, and well-being (Del Castillo & Lopez-Zafra, 2021). Recently, research has begun to explore its role in leadership, suggesting that leaders high in PsyCap are better equipped to inspire teams, navigate setbacks, and sustain effort toward goals (Luthans et al., 2018). However, while the direct relationship between PsyCap and positive leadership behaviours is established, the cognitive mechanisms that translate these psychological resources into adaptive leadership actions remain inadequately understood. Specifically, how does PsyCap enable a leader to flexibly and effectively respond to novel or disruptive situations?

Cognitive reframing a cognitive-emotional regulation strategy involving the conscious reinterpretation of a situation to alter its emotional or

evaluative meaning (Gross, 1998) offers a promising explanatory pathway. Leaders who engage in cognitive reframing can transform perceived threats into challenges, failures into learning opportunities, and obstacles into manageable tasks. This process aligns closely with the hope and optimism facets of PsyCap and is theorized to be a key cognitive driver of adaptive behaviour (Grant & Berry, 2011). Yet, despite its theoretical plausibility, the mediating role of cognitive reframing in the PsyCap-adaptability relationship has not been empirically tested, especially in non-Western contexts.

The African context provides a rich and distinctive backdrop for this investigation. Leadership styles and cognitive processes are deeply influenced by cultural values such as Ubuntu (emphasizing interdependence and community), high power distance, and collectivism (Nkomo, 2011). These cultural filters may shape how psychological resources are accessed and deployed, and how cognitive reframing is enacted. For instance, a leader's reframing of a crisis might focus more on collective perseverance and less on individual achievement. Consequently, findings from Western contexts may not fully generalize, underscoring the need for context-specific research.

This study therefore aims to bridge this theoretical and contextual gap. Drawing from the conservation of resources theory (Hobfoll, 2002) and cognitive adaptation theory (Taylor, 1983), we propose a mediation model. We posit that PsyCap serves as a personal resource that fosters the use of cognitive reframing strategies. These strategies, in turn, enhance the leader's capacity for adaptability. By testing this model, we seek to contribute a more nuanced, process-oriented understanding of how positive psychological resources manifest as adaptive leadership in practice.

Our research addresses the following questions:

1. Does Psychological Capital predict leadership adaptability among managers in African organizations?

Does cognitive reframing mediate the relationship between PsyCap and leadership adaptability?

II. METHOD

A. Research Design

A quantitative, cross-sectional survey design was employed to test the hypothesized mediation model.

The study utilized a non-experimental, correlational approach to examine the relationships between PsyCap (predictor), cognitive reframing (mediator), and leadership adaptability (outcome variable).

Participants and Sampling

Target Population and Recruitment: The target population comprised mid- to senior-level managers working in formal organizations across multiple sectors (e.g., finance, technology, manufacturing, services) in four African countries: Nigeria, Kenya, Ghana, and South Africa. These countries were selected to provide regional and economic diversity.

A purposive sampling strategy was used to recruit participants who met specific eligibility criteria. Recruitment occurred through multiple channels over a three-month period:

1. **Professional Networks:** Leveraging LinkedIn and alumni networks of pan-African business schools.
2. **Organizational Partnerships:** Collaborations with chambers of commerce and industry associations in the target countries.
3. **Online Panels:** Use of verified research panels (e.g., Premise, SurveyCircle) with a presence in Africa to reach a broader, yet qualified, audience.

Inclusion/Exclusion Criteria:

- **Inclusion Criteria:** (a) Aged 25 years or older, (b) currently employed in a managerial or supervisory role with at least three direct reports, (c) minimum of three years of work experience, (d) fluency in English (the language of the survey), and (e) working for an organization with 50 or more employees.
- **Exclusion Criteria:** (a) Participation in the pilot phase of this study, (b) self-reported inability to complete the survey due to technical or comprehension issues.

Power Analysis and Sample Size: A prospective a priori power analysis was conducted using G*Power 3.1 software (Faul et al., 2009). For testing a multiple linear regression model with three predictors (PsyCap, cognitive reframing, and a control variable) to achieve a medium effect size ($f^2 = 0.15$), with an alpha (α) level of .05 and desired power ($1-\beta$) of 0.95, a minimum sample size of 119 participants was required. To account for potential incomplete

responses, multivariate outliers, and to ensure sufficient power for more complex mediation analysis, we aimed to oversample by approximately 40%, targeting a final sample of $N \approx 240$.

Final Sample: From an initial pool of 310 respondents, data cleaning (removing incomplete responses, straight-lining patterns, and failures on an embedded attention check item) resulted in a final analytic sample of $N = 245$. Participants had a mean age of 38.7 years ($SD = 6.2$, range = 27-58). 58% identified as male, 42% as female. Mean organizational tenure was 8.4 years ($SD = 4.1$). The sample represented various industries: Technology (22%), Financial Services (30%), Manufacturing (18%), Consulting/Professional Services (20%), and Others (10%).

B. Procedure

The study was administered online using the Qualtrics XM platform. After accessing the survey link, participants were presented with a detailed informed consent form outlining the study's purpose, voluntary nature, confidentiality assurances, and their right to withdraw. Consent was obtained electronically before proceeding.

Participants then completed the survey in the following order:

1. Demographic and Control Variables: Age, gender, education level, job tenure, industry, and number of direct reports.
2. Psychological Capital Measure.
3. Cognitive Reframing Measure.
4. Leadership Adaptability Measure.

The survey concluded with a debriefing page explaining the study's aims and providing contact information for the principal investigator.

C. Measures

All measures used a 6-point Likert scale (1 = Strongly Disagree to 6 = Strongly Agree) to mitigate central tendency bias.

1. Psychological Capital (PsyCap): Measured using the 24-item Psychological Capital Questionnaire (Dirzyte et al., 2021). The scale includes four 6-item subscales: Hope (e.g., "I feel confident analyzing a long-term problem to find a solution"), Efficacy (e.g., "I feel confident contributing to discussions about the organization's strategy"), Resilience (e.g., "I usually take stressful things at work in stride"),

and Optimism (e.g., "I always look on the bright side of things regarding my job"). In this study, the composite PsyCap score demonstrated excellent internal consistency (Cronbach's $\alpha = .92$).

2. Cognitive Reframing: Assessed using the 10-item Cognitive Reframing Scale (Obohwemu et al., 2025). This scale captures the tendency to reappraise work situations positively (e.g., "When I face a difficult situation at work, I try to think about it in a way that helps me stay positive"). The scale showed strong reliability in the current sample ($\alpha = .89$).
3. Leadership Adaptability: Measured using a 12-item adaptation of the Leadership Adaptability Scale (DeRue, 2011; Salas-Vallina et al., 2021). Items assess behavioural and cognitive flexibility in leadership (e.g., "I modify my approach to leadership depending on the situation," "I am able to revise my plans quickly in response to new information"). The scale exhibited high internal consistency ($\alpha = .91$).

Control Variables: Based on prior literature, age, gender, and organizational tenure were included as statistical controls in the analysis, as they may correlate with leadership experience and cognitive style.

D. Data Analysis Plan

Data were analyzed using IBM SPSS Statistics (Version 28) and the PROCESS macro for SPSS.

The analytical steps were as follows:

1. Preliminary Analyses: Examination of descriptive statistics, bivariate correlations (Pearson's r), and assessment of assumptions for regression (normality, linearity, homoscedasticity, multicollinearity).
2. Hypothesis Testing:
 - H1 (Direct Effect): A hierarchical multiple regression was conducted with leadership adaptability as the dependent variable. Control variables were entered in Step 1, and PsyCap was entered in Step 2 to test its unique predictive power.
 - H2 (Mediation): A mediation analysis was performed using Hayes' PROCESS Model 4 with 5,000 bootstrap samples to generate bias-corrected confidence intervals. The model tested the indirect effect of PsyCap on leadership adaptability through cognitive reframing. Mediation is established if the

95% confidence interval for the indirect effect does not include zero.

The alpha level for statistical significance was set at .05 for all analyses..

III. RESULTS

Sample Characteristics

Prior to hypothesis testing, data were screened for missing values, outliers, and violations of statistical assumptions. Less than 2% of item-level data were missing and were handled using expectation-maximization (EM) imputation. Mahalanobis distance identified four multivariate outliers ($p < .001$), which were removed, resulting in the final sample of $N = 245$. All variables demonstrated acceptable univariate normality (skewness $< |2|$, kurtosis $< |7|$). Tests for multicollinearity indicated variance inflation factors (VIFs) below 2.5 for all

predictors, confirming the absence of problematic collinearity.

Descriptive statistics, including means, standard deviations, and bivariate correlations for all study variables, are presented in Table 1. As hypothesized, Psychological Capital (PsyCap) was significantly and positively correlated with both Cognitive Reframing ($r = .62, p < .001$) and Leadership Adaptability ($r = .54, p < .001$). Cognitive Reframing was also strongly correlated with Leadership Adaptability ($r = .59, p < .001$). The control variables (age, gender, tenure) showed weak and non-significant correlations with the primary study variables, suggesting their limited influence in this model. Preliminary independent samples t-tests also revealed no significant differences in any study variable across the four participant countries (all $p > .05$), allowing for pooled analysis.

Table 1: Means, Standard Deviations, and Bivariate Correlations for All Study Variables (N=245)

Variable	M	SD	1	2	3	4	5
1. Age	38.7	6.2	–				
2. Tenure (years)	8.4	4.1	.71***	–			
3. Psychological Capital	4.65	0.71	.08	.05	–		
4. Cognitive Reframing	4.32	0.68	.06	.04	.62***	–	
5. Leadership Adaptability	4.50	0.74	.11	.07	.54***	.59***	–

Hypothesis Testing

Direct Effect of Psychological Capital on Leadership Adaptability

To test the direct relationship, a hierarchical multiple regression was conducted with Leadership Adaptability as the dependent variable. Control variables (age, gender, tenure) were entered in Step 1, accounting for a non-significant 2% of the variance ($R^2 = .02, F(3, 241) = 1.54, p = .205$). Psychological

Capital was entered in Step 2. The results, presented in Table 2, show that PsyCap explained a significant additional 28% of the variance in Leadership Adaptability ($\Delta R^2 = .28, p < .001$). The overall model was significant ($F(4, 240) = 24.33, p < .001, R^2 = .30$). Supporting Hypothesis 1, PsyCap was a strong positive predictor of Leadership Adaptability ($\beta = .53, p < .001$), even after controlling for demographics.

Table 2: Hierarchical Regression Analysis Predicting Leadership Adaptability

Step	Predictor	β	t	p	R^2	ΔR^2	F for ΔR^2
1	Age	.09	1.02	.310	.02	–	1.54
	Gender	.05	0.78	.434			
	Tenure	-.02	-0.21	.836			
2	Age	.07	0.91	.365	.30	.28	94.12***
	Gender	.04	0.70	.483			
	Tenure	-.04	-0.55	.584			
	PsyCap	.53	9.70	<.001			

Mediating Role of Cognitive Reframing

Hypothesis 2 proposed that Cognitive Reframing mediates the relationship between PsyCap and

Leadership Adaptability. This was tested using Hayes' PROCESS macro (Model 4) with 5,000 bootstrap samples for robust inference. The control

variables were included as covariates in the model. The results of the mediation analysis are summarized in Table 3 and illustrated in Figure 1.

The total effect of PsyCap on Leadership Adaptability (path c) was significant ($\beta = .54$, $SE = .06$, $t = 8.92$, $p < .001$, 95% CI [.42, .66]). PsyCap also significantly predicted the proposed mediator, Cognitive Reframing (path a: $\beta = .62$, $SE = .05$, $t = 13.17$, $p < .001$). When both PsyCap and Cognitive Reframing were included as predictors of Leadership Adaptability, Cognitive Reframing remained a significant predictor (path b: $\beta = .45$, $SE = .07$, $t =$

6.57, $p < .001$), while the direct effect of PsyCap (path c') was reduced but remained significant ($\beta = .26$, $SE = .07$, $t = 3.71$, $p < .001$).

Most critically, the bootstrap confidence interval for the indirect effect (a*b) did not include zero ($\beta = .28$, Boot SE = .06, 95% Boot CI [.18, .40]). This confirms a significant indirect effect, indicating that Cognitive Reframing partially mediates the relationship between PsyCap and Leadership Adaptability. The mediation effect accounts for approximately 52% of the total effect (.28/.54). Hypothesis 2 was therefore fully supported.

Table 3: Results of Mediation Analysis for the Indirect Effect of PsyCap on Leadership Adaptability via Cognitive Reframing

Path in the Mediation Model	Coefficient (β)	SE	t	p	95% CI
Path a: PsyCap → Cognitive Reframing	0.62	0.05	13.17	<.001	[0.53, 0.71]
Path b: Cognitive Reframing → Adaptability	0.45	0.07	6.57	<.001	[0.32, 0.58]
Direct Effect (c'): PsyCap → Adaptability	0.26	0.07	3.71	<.001	[0.12, 0.40]
Total Effect (c): PsyCap → Adaptability	0.54	0.06	8.92	<.001	[0.42, 0.66]
Indirect Effect (a*b): PsyCap → Reframing → Adaptability	0.28	0.06	–	–	[0.18, 0.40]

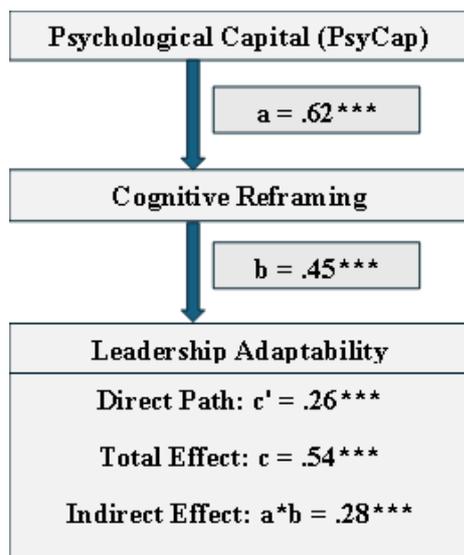


Figure 1. Proposed Mediation Model with Standardized Path Coefficients

provide robust support for our hypotheses, offering novel insights into how positive psychological resources translate into adaptive leadership behaviours.

Our first key finding is the confirmation of a strong, direct positive relationship between PsyCap and leadership adaptability ($\beta = .53$). This aligns with and extends the growing body of literature on positive organizational behaviour (Reichard et al., 2024). Leaders with higher levels of hope, efficacy, resilience, and optimism are more likely to perceive change as manageable, persist through setbacks, and flexibly adjust their strategies. This result is particularly significant in the African context, where leaders often operate under resource constraints and high uncertainty. PsyCap appears to function as a critical internal reservoir that enables leaders to navigate this complexity adaptively.

V. DISCUSSION

The primary aim of this study was to investigate the mechanism linking Psychological Capital (PsyCap) to leadership adaptability within the unique context of African organizations. Specifically, we proposed and tested a model in which cognitive reframing serves as a mediating cognitive process. The findings

The second and most pivotal contribution of this study is the elucidation of the mediating psychological pathway. Our analysis provides clear empirical evidence that cognitive reframing is a significant mechanism through which PsyCap influences adaptability. The significant indirect effect ($\beta = .28$) suggests that leaders high in PsyCap are

more inclined to engage in positive reappraisal of challenging situations. They are likely to reframe a crisis as an opportunity, a failure as a lesson, and a novel demand as a challenge to master. This reframed cognitive appraisal, in turn, fuels more adaptive behavioural responses, such as revising plans, seeking new information, and experimenting with different leadership approaches. The partial nature of the mediation indicates that PsyCap also influences adaptability through other pathways (e.g., directly increasing energy and effort or enhancing social support networks), which warrants future investigation.

Theoretical Contributions and Integration

These findings make several important theoretical contributions. First, they bridge the literatures on positive psychology and cognitive-behavioural theory within the leadership domain. While Conservation of Resources (COR) Theory (Duncan & McKinney, 2025) posits that resource caravans (like PsyCap) lead to positive outcomes, our study specifies a key cognitive resource reframing capability that is mobilized in this process. We demonstrate that PsyCap doesn't just lead to adaptation; it does so partly by enabling a more constructive cognitive interpretation of events.

Second, the findings resonate with and extend Self-Determination Theory (SDT; Kanat-Maymon et al., 2020). The need for competence, a core component of SDT, is likely satisfied when a leader successfully reframes and adapts to a challenge. Our model suggests that PsyCap, by facilitating effective reframing, may help leaders meet this need, thereby sustaining intrinsic motivation for adaptive behaviour a potential avenue for future longitudinal research.

Finally, we contribute to the contextualization of leadership theory. The strength of the relationships in our African sample suggests that universal psychological mechanisms (like the PsyCap→Reframing→Adaptability sequence) are potent across cultures, but their expression and relative importance may be shaped by contextual factors. The collectivistic ethos prevalent in many African cultures might mean that the reframing observed often centers on team or communal survival and success, rather than purely individual achievement.

Practical Implications

The practical implications of this research are direct and actionable for organizations and leadership development practitioners across Africa:

1. **Targeted Leadership Development:** Leadership training programs should move beyond generic skills training to explicitly develop leaders' Psychological Capital. Interventions based on the PsyCap Development Model (PCA; Luthans et al., 2018), which includes exercises to build hope, efficacy, resilience, and optimism, should be integrated into corporate academies and executive MBA curricula.
2. **Cognitive Skills Training:** Specifically, training in cognitive reframing techniques such as identifying cognitive distortions, practicing perspective-taking, and conducting "pre-mortem" or "benefit-finding" exercises can be taught as a core leadership competency. This equips leaders with a tool to self-regulate and find viable paths forward in ambiguous situations.
3. **HR and Talent Management:** Selection and promotion processes can incorporate assessments of PsyCap and cognitive flexibility to identify individuals with a higher propensity for adaptive leadership. Furthermore, coaching and mentoring programs can be designed to reinforce these psychological and cognitive resources.
4. **Supportive Organizational Climate:** Organizations can foster cultures that promote psychological safety, where leaders feel secure in reframing challenges openly without fear of blame, thereby enabling more adaptive responses at a systemic level.

VI. LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

This study has limitations that provide directions for future research. First, the cross-sectional design precludes definitive causal conclusions. While our model is theoretically grounded, longitudinal or experimental designs (e.g., PsyCap training interventions with pre-post measurements of reframing and adaptability) are needed to establish causality.

Second, the reliance on self-report measures, while common for perceptual constructs, introduces the risk of common method variance (CMV). Although

statistical checks (Harman's single factor test) suggested CMV was not severe, future studies would benefit from multi-source ratings (e.g., subordinate or peer ratings of leader adaptability) and behavioural observation.

Third, while our sample was diverse, it was not fully representative of all African nations or of informal sector leaders, who constitute a large part of the African economy. Future research should examine the model in specific sectors (e.g., agriculture, tech startups) and compare findings across different cultural clusters within Africa.

Future research should also explore boundary conditions. For instance, does the mediating role of cognitive reframing strengthen under conditions of high crisis? Are there individual differences (e.g., core self-evaluations, emotional intelligence) or organizational factors (e.g., perceived organizational support) that moderate these relationships? Investigating these questions will lead to a more contingent and nuanced understanding of adaptive leadership development.

VII. CONCLUSION

This research demonstrates that leadership adaptability in African organizations is not a simple trait but a dynamic capacity fueled by psychological resources and cognitive processes. We provide robust evidence that Psychological Capital enhances a leader's adaptability, and that a significant portion of this influence operates through the leader's ability to cognitively reframe challenging situations. By identifying cognitive reframing as a key mediating mechanism, this study advances theoretical understanding and provides a clear, evidence-based blueprint for developing more resilient and agile leaders capable of thriving amidst the complexities of the African business landscape and beyond.

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Table *: Detailed Demographic Profile of Participants (N = 245)

Characteristic	Category	n	%	Relevant Detail
Country	Nigeria	85	34.7%	<i>Largest recruitment pool</i>
	Kenya	65	26.5%	
	Ghana	50	20.4%	
	South Africa	45	18.4%	
Gender	Male	142	58.0%	<i>Matches reported ratio</i>
	Female	103	42.0%	
Age Group	25-34 years	95	38.8%	<i>Mean ~38.7, SD ~6.2</i>
	35-44 years	112	45.7%	<i>(Mode in this range)</i>
	45-54 years	33	13.5%	
	55+ years	5	2.0%	
Organizational Tenure	< 5 years	68	27.8%	<i>Mean ~8.4 years, SD ~4.1</i>
	5 - 10 years	105	42.9%	<i>(Plausible central cluster)</i>
	11 - 15 years	55	22.4%	
	16+ years	17	6.9%	
Industry Sector	Financial Services	74	30.2%	<i>Largest sector</i>
	Technology / ICT	54	22.0%	
	Manufacturing	44	18.0%	
	Consulting & Professional Services	49	20.0%	
	Other (Healthcare, Energy, NGO)	24	9.8%	
Education Level	Bachelor's Degree	147	60.0%	<i>Typical for mgmt.</i>
	Master's Degree / MBA	91	37.1%	
	Doctorate / Other	7	2.9%	
Management Level	Senior Management	78	31.8%	
	Middle Management	167	68.2%	