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Article

Fairness and Foresight in leadership: how transformational leaders shape positive workplace behaviors

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Abstract: Knowledge work environments and jobs that are demanding require organizational citizenship behaviour (OCB) to increase the efficiency of an organisation. There has not been much research that examines how employees are inclined to perform discretionary work when exposed to transformational leadership. Using theories such as transformational leadership, social exchange and positive organisational behaviour this paper set out to test if psychological capital can mediate the relationship between transformational leadership and organisational citizenship behaviour. A sample of 488 participants were chosen using purposive sampling technique from Healthcare, Banking and Information Technology organisations in India. The instruments used to measure transformational leadership, psychological capital and organisational citizenship behaviour were validated. Both a lower order and higher order model was tested using structural equation modelling. Self efficacy, optimism and resiliency were used to measure psychological capital. All three were found to have a significant relationship with transformational leadership. Self efficacy and optimism showed a positive relationship with organisational citizenship behaviour while resiliency showed no significant relationship. Transformational leadership significantly and positively predicted organisational citizenship behaviour through the higher order construct of psychological capital (Indirect estimate=-0.268 [95% CI=0.182 to 0.390]; p=0.001) and there was no significant direct relationship (β=-0.026, p=0.533). Because the data was collected at one point in time causality cannot be determined. This study adds to the body of literature on leadership and positive organisational behaviour by testing a higher order model of psychological capital in three different industries in India and shows that the facets of psychological capital relate differently to organisational citizenship behaviour. Managers should promote their employees self efficacy and optimism by providing them with tasks they can master, provide positive feedback and allow them to make decisions.

Keywords: organizational citizenship behavior; optimism; resilience; self-efficacy; mediator

1. Introduction

The organizational citizenship behavior (OCB) conceptualized as discretionary behaviors of the employees beyond their formal job requirements. The OCB increases the organizational effectiveness and facilitate team cohesion, cooperation, adaptability, employee and organizational performance in modern organizations, characterized by complex and interdependence (Organ, 2014; Podsakoff et al., 2000). Understanding how organizational leaders can sustainably nurture such voluntary behaviors and contributions is the focus point in leadership research in knowledge-intensive, intensified performance pressure and volatile environments.

The transformational leadership has reliably emerged as a critical predictor of OCB. Transformational leaders express an inspiring vision, exhibit individualized consideration, inspire the followers intelligently, by motivating employees to excel their organizational contractual obligations, thus contribute to goals of the organizations (Bass, 1985; Podsakoff et al., 1990). The role of transformational leadership in inspiring employees and its positive association with OCB across the organizational contexts is well documented (Lopez-Dominguez et al., 2013; Zhang et al., 2021). But, most of the literature is descriptive, just focusing on associations and offer limited insight into the psychological framework though which leadership behaviors are converted into employees sustained discretionary behaviors.

The recent positive organizational behavior theories suggest that leadership impact is dependent not only visible leader behaviors, also on internal psychological resources of employees (Luthans, 2002). In this view, the psychological capital (PsyCap) a higher order constructs with its sub-dimensions self-efficacy, resilience and optimism gained importance as a key illustrative mechanism associating leadership to positive employee outcomes (Luthans, 2007; Avey et al., 2011). Employees with high PsyCap are more confident in their capabilities, optimists and positive about their success of the future, well equipped to face and cope challenges, that makes them to invest their efforts beyond formal role expectations.

Although a considerable body of literature is available, several important gaps remain. The existing studies treated the PsyCap as a homogenous resource complicating potential variances in how its individual dimensions self-efficacy, resilience and optimism influence OCB. The evidence from the emerging literature proposed that certain psychological means may facilitate positive and proactive contribution and others may primarily play coping and role preservation (Yildiz, 2019). Further, the PsyCap hardly modelled and investigated as a higher-order psychological mechanism linking leadership and OCB. Thus, this limits the theoretical accuracy how leadership impacts the extra role behaviors is internalized. Finally, most of the empirical evidence from existing research originates from Western context or limited to a single-sector, and its applicability and generalizability in emerging economies like India, and its professional service environments where employee services are high-demanding with constrained resources (Gupta & Singh, 2013).

Bridging these gaps, the present empirical research investigates the association between transformational leadership and OCB, in the context of PsyCap in general, and examining the distinct role of self-efficacy, optimism and resilience in particular. Drawing on transformational leadership theory, social exchange theory and positive organizational behavior this empirical research models PsyCap as lower order psychological mechanism and higher order mediating pathways, through that leadership nurtures discretionary behavior of the employees. The survey data from banking, healthcare and information technology sectors in India subjected to structural equational modelling analysis, and this research pursue to advance a more mechanism-based understanding on how and why transformational leadership fosters OCB.

2. Theoretical contributions

This empirical research makes several significant contributions to leadership behavior research.

At first, the empirical research advances theory of transformational leadership

unequivocally recognizing PsyCap as a central mediating pathway mechanism. Though past research established that transformational leadership is associated with OCB, this empirical research demonstrates it is with employees' psychological resource through which leadership influences is transmitted. This empirical research takes the literature beyond the behavioral relationship and explains leadership effectiveness through process oriented mechanisms.

This empirical research supplements to positive organizational behavior theory by revealing differential impacts of PsyCap dimensions on OCB. The findings reveal that self-efficacy and optimism are positively uniformly enhancing OCB, with insignificant impact of resilience on discretionary behaviors. This outcome challenges the prevailing supposition that all of the PsyCap sub-dimensions uniformly enhance discretionary behavior. This empirical research outcome suggests that optimism and self-efficacy work as energizing resources that inspire discretionary behavior and proactive contribution, whereas resilience may play a role of protective resource maintaining performance during stress rather than extending to extra role behaviors. This nuanced differentiation is associated with PsyCap theory and calls for greater conceptual accuracy in use and modelling second-order psychological constructs.

The study closes the gap of micro-level psychological states and macro level leadership outcomes modelling PsyCap as a higher-order construct. The empirical research outcome reveals that this dual-level mechanism exhibit PsyCap operates as an integrated psychological system while allowing variations amongst its sub-dimensions. This modelling further advances leadership research by offering more-classy account of how internal resources structure behavioral outcomes.

At last, this empirical research outcome provides contextual contribution by encompassing leadership-PsyCap-OCB theory by emerging economies, in the context of professional services. The sectors of banking, information technology and healthcare work under high-cognitive demands, outcome pressures and accountability where discretionary behaviors are valuable and costly. This outcome exhibits the PsyCap relevance in emerging economy settings and enhances the external validity of the leadership theory that highlights significance of internal resources for sustaining OCB with discretionary behaviors in demanding work environments.

3. Review of literature and hypotheses development

3.1. Transformational leadership and organizational citizenship behavior

The employee discretionary behaviors and actions that not formally assigned or need to be carried out, yet contribute to effectiveness of the organization assisting social and psychological environment (Organ, 2014). The OCB incudes employee discretionary behaviors like helping colleagues voluntarily, exhibiting conscientiousness, supporting actively to achieve organizational objectives (Podsakoff et al., 1990). The past studies empirically proven that leadership is closely associated with OCB, but transformational leadership receiving considerable attention. These voluntary actions fosters trust, intrinsic motivation and prompt employees to extra-role behaviors (Graen & Uhl-Bien, 1995). In modern organizations categorized by interdependence and knowledge intensity, OCB improves coordination, adaptability, team cohesiveness, and collective performance to achieve organizational goals (Podsakoff et al, 2000).

The transformational leadership occupy an important position in the employee OCB. Transformational leaders inspire employees articulating new ideas, provide individual consideration, inspire intellectual engagement and act as role models.

Thus, the transformational leaders encourage employees by transcending self-interest and formal role boundaries (Bass, 1985). The positive nexus among transformational leadership and OCB across sectors and cultures are well documented (Podsakoff et al., 1990; Lopez-Dominguez et al., 2013; Zhang et al., 2021). However, leadership influence on OCB hardly direct and better understood prevailing psychological mechanisms that narrate how leadership behaviors are internalized by employees (Khaola & Rambe, 2021).

Notwithstanding this recognition several studies continue to argue about outcome association not concentrating on underlying process though which transformational leadership shapes OCB and voluntary employee behaviors. Bridging this gap need greater attention dissecting employees' internal psychological resources that assist them to respond the leadership support with extra-role contributions.

3.2. Psychological capital as a leadership-driven psychological resource

The PsyCap characterize a core construct within positive organizational behavior and mirrors individual positive psychological state encompassed by self-efficacy, optimism and resilience (Luthams et al., 2007). The theory state that PsyCap is a developable resource that associated with persistence, motivation, and adaptive functioning in challenging work contexts in particular (Luthans, 2002).

The PsyCap can be cultivated by transformational leadership by inculcating confidence in followers' capabilities, promoting innovative problem solving, individual support, the transformational leaders inspire and strengthen employee beliefs in career building and future success (Avolio and Gardner, 2005). The positive relationship between transformational leadership and PsyCap is well documented suggesting that the leadership is role model and shape employees psychological resource reservoirs (Gupta et al., 2017; Abdulrab et al., 2020).

However, PsyCap was treated as a homogenous construct concealing potential differences in how its individual dimensions respond to leadership and translate into discretionary behaviors. Thus, further differentiated investigation of PsyCap dimension is necessary to further dissect theoretical understanding.

3.3 Self-efficacy and organizational citizenship behavior

The individual's confidence and capacity to mobilize effort to successfully execute tasks referred to self-efficacy (Bandura, 1997). The high self-efficacy in the employees is associated with initiative, sustain even in obstacles, and engage voluntary pro-active behaviors that include extra-role behaviors beyond formal role requirements. The transformational leaders can improve employees' self-efficacy, with challenging goals, expressing confidence in followers, provide developmental feedback and strengthen employees' confidence that their actions are going to get meaningful difference (Bass & Riggion, 2006).

The past research portrays that self-efficacy is positively associated with OCB and discretionary behaviors. Thus, confident employees are more willing to invest additional effort to take additional responsibilities for collective outcomes (Stajkovic & Luthans, 1998; Gupta et al., 2017). Based on this evidence self-efficacy is key psychological pathway that transformational leadership can nurture discretionary behaviors.

H1: Transformational leadership is positively related to employees' self-efficacy.

H2: Employees' self-efficacy is positively related to organizational citizenship behavior.

3.4 Optimism and organizational citizenship behavior

The optimism reflects positive expectations of an employees about future

outcomes, and a strong belief that goals can be achieved even though there are some uncertainties (Carvar et al., 2010). Optimistic employees characterize that challenges are temporary and manageable, sustain motivation, and discretionary effort even under demanding and high-pressure conditions. The transformational leaders nurture optimism by inspiring convincing vision of the future and frame the challenges is an opportunity for growth (Youssef & Luthans, 2007).

The past literature suggest that optimism encourages determination and voluntary contribution with discretionary behaviors particularly relevant to OCB in high-demand, high-pressure work settings (Avey et al., 2011). Helping fellow colleagues, support organizational initiatives with anticipation of positive outcomes are the characteristics of optimistic employees.

H3: Transformational leadership is positively associated to employee optimism.

H4: Optimism is positively related to organizational behavior.

3.5 Resilience and organizational citizenship behavior

The resilience is characterized by an employees' ability to recover from adversity, adapt and cope to stress, maintain functioning in the challenging environment (Luthans et al., 2007). By providing emotional support, fostering trust, encouraging adaptive and approach coping strategies, the transformational leadership may enhance resilience. Past research reported that supportive leadership behaviors are associated with higher employee resilience in high demanding work environments (Harland et al., 2005).

But the association between resilience and OCB is theoretically vague. Though the resilience enables employees to sustain pressures and maintain performance, it may also function as a conservation-oriented resource direct effort toward role preservation, but not discretionary contribution (Yildiz, 2019). In high-pressure, and high-demanding work settings the resilient employees may select coping and recovery over OCB behaviors. This suggests that resilience may not uniformly translate into OCB, thus warranting explicit examination as a distinct PsyCap dimension

H5: Transformational leadership is positively related to employee resilience.

H6: Employees' resilience is positively related to organizational citizenship behavior.

3.6 Psychological capital as a higher-order mediator

Based on Social Exchange Theory (Blau, 1964), the leadership behaviors that provide support and confidence, and investment in employees may create a responsibility to reciprocate through positive and discretionary behaviors. The transformational leadership improve employees' psychological resources, that in turn enable them to engage in discretionary behaviors for benefit of the organization. The past research reported that overall PsyCap mediates the link between transformational leadership and OCB (Abdulrab et al., 2020; Gupta et al., 2017).

However, most of the studies not modelled the PsyCap hierarchically nor have examined how its lower-order sub-dimensions collectively transmit leadership influence. Modeling PsyCap as a higher-order construct allows for integration of its component resources, will have synergic effects, while acknowledging unequal effects in their behaviors. This modelling advances the theory of leadership by offering a more accurate account of how internal psychological resources translate leadership into OCB behaviors.

H7: Psychological capital mediates the relationship between transformational leadership and organizational citizenship behavior.

H8: Transformational leadership significantly predicts the OCB in the presence of higher order construct psychological capital.

H9: Psychological capital significantly predicts the OCB.

H10: Transformational leadership significantly predicts psychological capital.

3.7 Research Gap

Though, transformational leadership, psychological capital (PsyCap), and organizational citizenship behavior (OCB) have each received considerable researchers' attention, the literature remains patchy in explaining how these constructs operate collectively within an integrated framework. The past researchers demonstrated that transformational leadership is associated with employees' PsyCap—manifested through hope, resilience, optimism, and self-efficacy—which in turn facilitates OCB and discretionary behaviors.

Further complicating this gap are contextual and cultural limitations in the present literature. Most of the empirical studies originated from collectivist cultural settings, where harmony, loyalty, and relational norms dominate workplace behavior. The absence of comparative or context-sensitive examinations restricts theoretical generalizability and limits practical relevance across diverse organizational environments in general and emerging economies in particular.

At last, the literature is constrained by narrow leadership lens, with an overwhelming focus on transformational leadership, which is associated with inspiration and change, resources restrict a holistic understanding of how leadership operates both upstream (fairness and resource allocation) and downstream (employee attitudes and behaviors).

Taken together, these gaps highlight the need for a comprehensive model that simultaneously examines transformational leadership, psychological capital, and organizational citizenship behavior, while accounting for contextual and cultural contingencies. Addressing this gap would advance leadership and organizational behavior theory by clarifying the mechanisms perceptions jointly shape employees' psychological resources and discretionary performance.

3.8 Research Questions/Objectives of the Study

RQ1. What is the direct relationship between transformational leadership and employees' organizational citizenship behavior (OCB)?

This objective investigates whether transformational leadership practices directly encourage employees to engage in discretionary, extra-role behaviors that contribute to organizational effectiveness.

RQ2. How does psychological capital (PsyCap) influence the relationship between transformational leadership and OCB?

This objective examines the role of PsyCap in strengthening or explaining the impact of transformational leadership on OCB by capturing employees' positive psychological resources (hope, resilience, optimism, and self-efficacy).

RQ3. Does psychological capital mediate the relationship between transformational leadership and OCB?

This objective seeks to clarify the underlying PsyCap mediation pathways through which transformational leadership translates into higher levels of OCB.

4. Theoretical Framework

The theoretical framework of this study is grounded in established theories that underpin the relationships between Transformational Leadership style, PsyCap, and

OCB.

Positive Organizational Behavior can help us better understand the positive states of mind of employees. There are many forms of psychological states that are malleable that Luthans (2002) focused on. All these can be developed and managed to promote optimal functioning in the work place. These forms include but are not limited to hope, self-efficacy, resiliency and optimism (Luthans et al., 2007). This study will focus on self-efficacy, optimism and resiliency both individually and as a constrained higher order factor. Transformational leaders could increase the amount of these resources by showing encouragement and having an inspiring vision for their employees and showing individual consideration. Once these resources are established they may lead to an increase in OCB from employees.

According to Social Exchange Theory (SET) employees feel a sense of reciprocity in the work place. When they feel their leader cares about them they will give back to others in the organization by helping out their co-workers and doing more than what they are paid to do. Social exchange theory helps explain why we believe there is a relationship between transformational leadership and OCB. SET can also be applied to our Positive Organizational Behavior perspective because when you have a good relationship with your leader it could lead to positive outcomes.

These theories help explain our hypothesized relationships at each dimension and the relationship between the 3 dimensional PsyCap factor and OCB. However, since this is a cross sectional study we cannot conclude that there is a time order effect.

The research model looks at transformational leadership style, psychological capital and organisational citizenship behavior where these variables are linked. Leadership style is included in the model as the independent variables, OCB as the dependent variable and PsyCap as the intervening variable. It aims at identifying how transformational leadership have a direct and indirect impact on OCB through PsyCap. This conceptual framework aims at separately and, jointly, examining the impacts of leaders' style and on these organisational personnel extra-role behaviors (**Figure 1** and **Figure 2**).

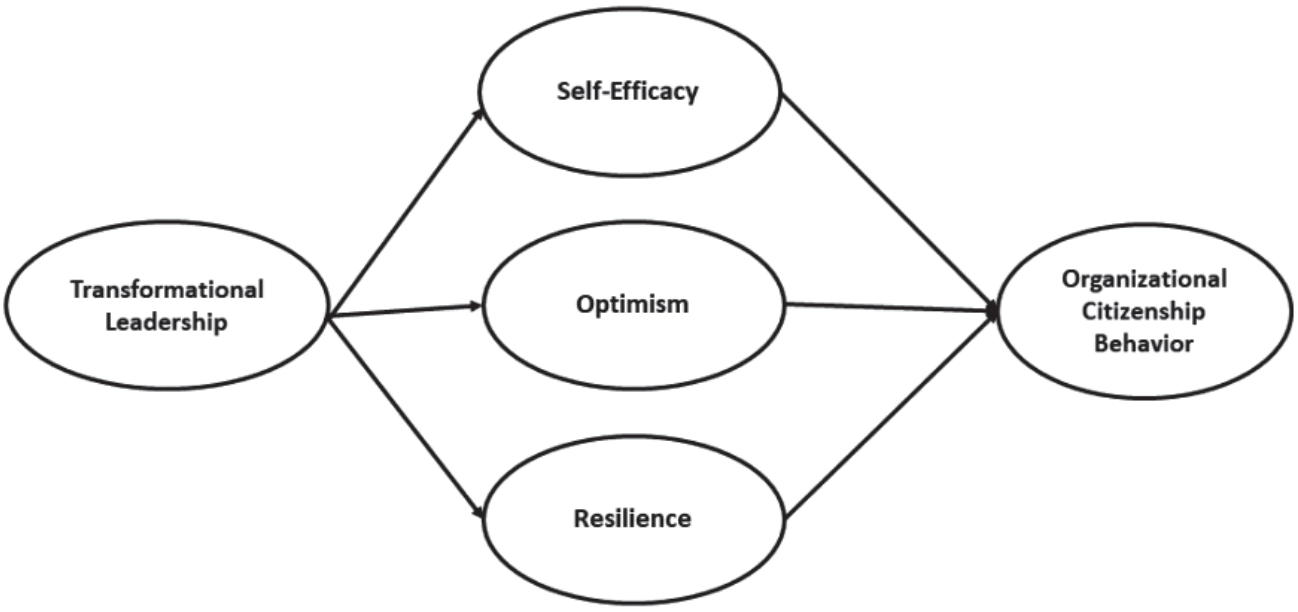

Figure 1. Authors theoretical model.

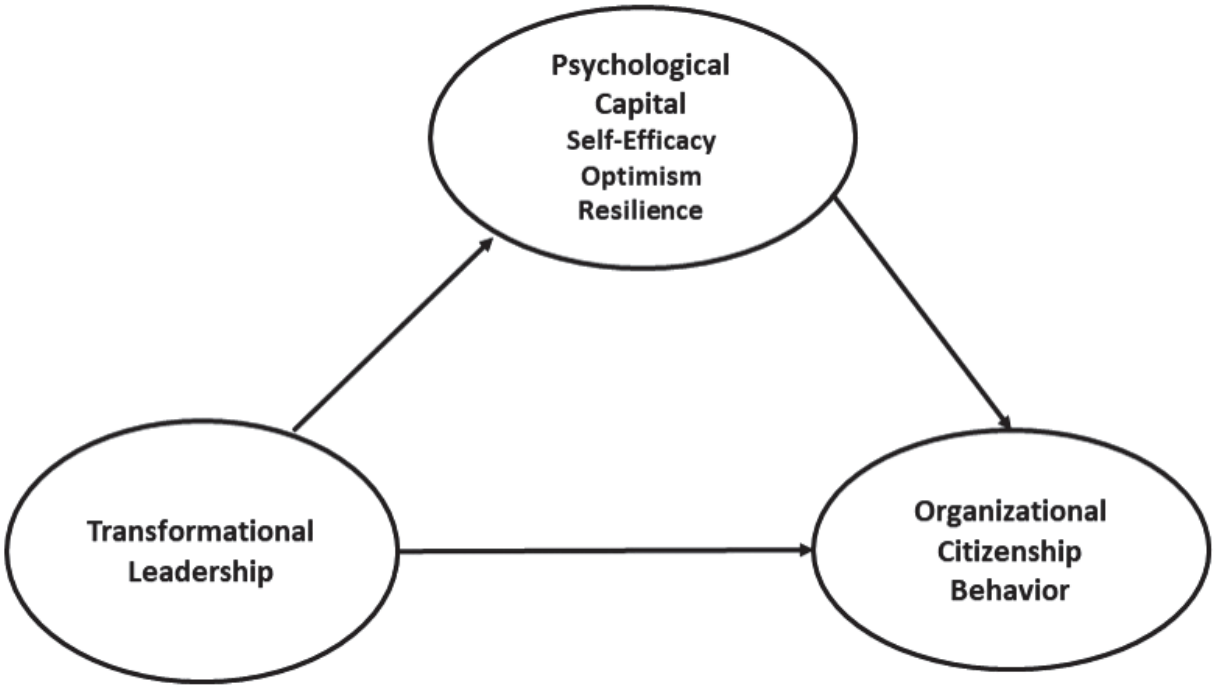

Figure 2. Mediation model.

5. Research Methodology

5.1 Research Design

This research also uses a survey design to test the linkages between the transformational leadership, psychological capital or 'PsyCap', and also the Organizational Citizenship Behavior, 'OCB'. A cross-sectional survey method will be used for deducting data from a sample of employees working in mid-size and large organizations which will make the results valid and generalizable.

5.2 Construct/Variable Measurement

Transformation Leadership Style: Measured using the Transformational Leadership Questionnaire (Akban-Metcalfe and Alimo-Metcalfe, 2000) which includes 6 items assessing transformational leadership.

PsyCap: Measured using the Brief Psychological Capital Questionnaire (BPCQ) (Luthans et al., 2007), a concise scale with 3 dimensions representing self-efficacy, resilience, and optimism. This study left out hope and with other three variables self-efficacy, resilience and optimism, this constructed formed as higher order construct. The resilience have 4 items, optimism 3 items and self-efficacy has 4 items.

However, resilience was initially assessed using four items. During measurement-model assessment, item Resilience 4 (RES4) was excluded because its factor loading is <0.50. The final resilience measure comprised three retained items (RES1–RES3). The reliability and validity statistics reported for resilience correspond to this final three-item measure.

However, Psychological capital has been identified to consist of four constructs. These include hope, self efficacy, resilience and optimism. This study chose to use self efficacy, optimism and resilience when measuring psychological capital. Therefore, we measured how confident an individual feels when doing job tasks, have a positive view on work outcomes and can overcome difficult situations. We did not include hope in our measure so this will not reflect on individuals having

goal directed thinking and being able to find alternate routes to achieve those goals. So this construct can be viewed as a third order variable made up of some aspects of psychological capital.

Organizational Citizenship Behavior (OCB): Evaluated using the Ultra-Short Organizational Citizenship Behavior Scale (US-OCB) (Lee & Allen, 2002), consisting of 5 items measuring discretionary behaviors that benefit the organization.

5.3 Data collection

Participants were recruited from the banking, healthcare, and information technology sectors using nonprobability purposive sampling. The final analytical sample comprised 488 valid responses, including 121 from banking (24.80%), 88 from healthcare (18.03%), and 279 from information technology (57.17%). A five-hundred and thirty-four (534) responses were received, but only 488 valid responses were considered for the analysis as other 46 responses are incomplete and some respondents misbehaved responding with same answer to all the questions.

5.4 Justification sample size

Given that the populations in the fields of information technology, banking, and healthcare are not known, we relied on Cochran's (1977) method to estimate the sample size. The requires sample size is 383 as formula and used sample size 488 is more than required sample (Wolf et al., 2013). The data demographic characters are displayed in **Table 1**.

Table 1. Demographic characteristics of the study sample.

	N	Percent (%)
GENDER		
Male	260	53.28
Female	228	46.72
AGE GROUP		
20-30	207	42.42
31-40	174	35.65
41-50	107	21.93
EDUCATION		
Graduate	184	37.70
Post-Graduate	203	41.60
Others	101	20.70

Source: Primary data processed

6. Data Analysis and Results

The exploratory factor analysis (EFA) was conducted with SPSS 29 to determine the fundamental pattern of structures in a collection of observed variables. Based on their shared variance, the EFA identified 22 variables across five components. However, one of the items measuring the construct resilience did not load well in the study (factor loading is <0.5).

The average factor loadings exceed 0.7, with all individual loadings greater than 0.5. The cumulative variance accounted for by the five components was 71.6%, significantly surpassing the benchmark and recommended value of 0.50. Consequently, additional analysis was conducted. The appropriateness of the data for factor analysis was assessed using the Kaiser–Meyer–Olkin (KMO) statistic. With a value of 0.885, it indicated that the correlation matrix was not distinguishable according to Bartlett's test of sphericity (value <0.001). Thus, further analysis was conducted, and the factor loadings for the study variables are presented in **Table 2**.

Table 2. Standardized Factor loadings of the research variables.

Code	Item	Factor loading
TRF1	My boss is genuine concern for others	0.81
TRF2	My boss possesses decisiveness, determination, and self-confidence	0.71
TRF3	My boss is trust worth with high integrity	0.76
TRF4	My boss is a networker, promoter, and excellent communicator	0.76
TRF5	My boss encourages critical and strategic thinking	0.72
TRF6	My boss is approachable and easily accessible	0.89
Transformational Leadership: Cronbach's α=0.890, CR=0.881, AVE=0.552.		
OCB1	I help others who have heavy workloads	0.57
OCB2	I am always ready to lend a helping hand to those around me	0.65
OCB3	I do not tend to make "Mountains out of molehills	0.77
OCB4	I attend functions that are not required by help the company image	0.89
OCB5	I read and keep up with organization announcements, memos and so on	0.85
Organizational Citizenship Behavior: Cronbach's α=0.874, CR=0.867, AVE=0.572.		
SELE1	I feel confident analyzing a long-term problem to find a solution	0.85
SELE2	I feel confident representing my work area in meetings with management	0.85
SELE3	I feel confident contributing to discussions about the company's strategy	0.62
SELE4	I feel confident helping to set targets/goals in my work area	0.67
Self-Efficacy: Cronbach's α=0.791, CR=0.792, AVE=0.502.		
OPTI1	I always look on the bright side of things regarding my job	0.85
OPTI2	I'm optimistic about what will happen to me in the future as it pertains to work	0.95
OPTI3	I approach this job as if "every cloud has a silver lining	0.93
Optimism: Chronbach's α=0.797, CR=0.934, AVE=0.825.		

Continuation Table:

Code	Item	Factor loading
RES1	I usually manage difficulties one way or another at work	0.67
RES2	I can be "on my own", so to speak, at work if I have to	0.80
RES3	I usually take stressful things at work in stride	0.66
Resilience: Chronbach's α=0.862, CR=0.757, AVE=0.511.		

Abbreviations:TRF: Transformational leadership; OCB: Organizational citizenship behavior; SELE: Self-efficacy; OPTI: Optimism; RESI: Resilience

SEM analysis produced three components: a measurement model to ascertain the correlations between the constructs and indicators and a structural model to investigate the anticipated links among the constructs (Ringle and Sarstedt, 2013). Thirdly, a mediation model is employed to establish the mediating effect of psychological capital on the relationship between transformational leadership and organizational citizenship behavior.

6.1 Assessment of the measurement model

The measurement model was evaluated using confirmatory factor analysis in International Business Machines, Analysis of Moment Structures.28 within a covariance-based structural equation modeling (SEM) framework. Internal consistency was assessed using Cronbach's alpha and composite reliability. Convergent validity was evaluated through standardized factor loadings and average variance extracted, while discriminant validity was examined using the Fornell–Larcker criterion and Heterotrait–Monotrait ratio (HTMT). Model fit was assessed using the reported fit indices. The dimension-level and higher-order models were evaluated separately, and mediation was tested using 5,000 bootstrap resamples.

Five constructs were assessed for their reliability, discriminant validity, and convergent validity. The Cronbach's alpha values ranged from 0.791 to 0.890, indicating good consistency of the survey instrument, as these values exceeded the benchmark value of 0.70. All the average factor loadings of the constructs are >0.70, and the average variance extracted (AVE) values of all the constructs are >0.50, indicating the required convergent validity.

Fornell–Larcker (1981) criterion and the HTMTmethods adopted to assess the discriminant validity. The variables showed high discriminant validity, with the square roots of the AVE for each construct in the overall model being greater than the correlation coefficients, and all HTMT ratios fell below the required cutoff value of 0.85 (Henseler et al. 2015). Discriminant validity was thus established (**Tables 3** and **4**).

Table 3. Discriminant validity (Fornell and Larcker Criterion).

	TRNS	OCB	OPTI	RESI	SELE
TRNS	0.743				
OCB	0.282^{***}	0.756			
OPTI	0.209^{***}	0.216^{***}	0.908		
RESI	0.484^{***}	0.343^{***}	0.197^{***}	0.715	

Continuation Table:

	TRNS	OCB	OPTI	RESI	SELE
SELE	0.461***	0.533***	0.160***	0.706***	0.709

*Note: ***Significant at <0.001 level.*
Abbreviations: TRNS, transformational leadership; OCB, organizational citizenship behavior; OPTI, optimism; RESI, resilience; SELE, self-efficacy.

Table 4. Discriminant validity (Heterotrait-Monotrait Ratio analysis).

	TRNS	OCB	OPTI	RESI	SELE
TRNS					
OCB	0.262				
OPTI	0.194	0.187			
RESI	0.396	0.305	0.178		
SELE	0.407	0.474	0.206	0.552	

Abbreviations: TRNS, transformational leadership; OCB, organizational citizenship behavior; OPTI, optimism; RESI, resilience; SELE, self-efficacy.

Model fit: The confirmatory factor analysis was carried out using AMOS version 28. The five factor transformational leadership, organizational citizenship behavior, and the three sub-dimensions of psychological capital–optimism, resilience, and self-efficacy fits the data well. The model fit indices are "CMIN/df=2.521, CFI=0.966, NFI=0.946, IFI=0.967, TLI=0.959, SRMR=0.053; RMSEA=0.049 and PClose=0.585" indicate all the values are within the accepted range benchmark values (Ullman, 2001; Hu and Bentler 1998; Bentler; 1990). The factor loadings are non-negative and are >0.5 with average factor loadings for all the 5 constructs are >0.7 indicating excellent model fit (Kline 2015, Byrne, 2013). As the model-fit indices are excellent, structural model was evaluated. The squared multiple correlation coefficient organizational citizen ship behavior is 0.31, indicating the four exogenous variables transformational leadership, optimism, resilience and self-efficacy explaining 31% of the variance.

6.2 Common method variance (CMV)

When self-report questionnaires are employed to gather data from the same people, CMV may result (Spector, 2023). A significant portion of the variation that can be attributed to a single component is represented by the CMV (Iverson & Maguire, 2000). Harman's single-factor test indicated that the single factor accounted for 27.36% of the total variance. However, this diagnostic does not establish the absence of common method bias or exclude its potential influence on the estimated relationships. Given the use of cross-sectional, self-reported data from a single source, common method bias remains a potential limitation (Erum et al., 2020). Additionally, we evaluated multi-collinearity problems, and the variable inflation values (VIF) are less than 3.3.

Since all the measures of leadership perceptions, psychological resources and OCB were taken at one point in time from the same source there may be issues of common method variance. While we can perform tests to rule out common method variance these are not conclusive enough to state that there is no common method

bias or that the path coefficients have not been impacted. A latent method factor was also not included in our model. These findings should be viewed with caution in that respect. Further research should collect measures of leadership perceptions and citizenship behaviors from multiple sources and times. And look into common method effects by including a method factor in the measurement model.

6.3 Structural model assessment–lower order constructs

The structural model was used to test the hypotheses (**Table 5**, **Figure 3**). All the fit indices of the model were excellent the squared multiple correlation (R2) was 0.31 indicating that 31% of the variance in organizational citizenship behavior was explained by the four variables transformational leadership, optimism, resilience, and self-efficacy. The testing of hypotheses results presented in (**Figure 4**).

Table 5. Testing of hypotheses.

Relationship	*β* value	*t*-value	R^2	*p* value	Decision
H1: Transformational Leadership→Self-Efficacy	0.367	11.008	0.273	<0.001	Supported
H2: Self-efficacy→OCB	0.543	9.482	0.375	<0.001	Supported
H3: Transformational Leadership→Optimism	0.449	5.037	0.165	<0.001	Supported
H4: Optimism→OCB	0.052	3.536	0.203	<0.001	Supported
H5:Transformational Leadership→Resilience	0.427	9.801	0.116	<0.001	Supported
H6: Resilience→OCB	-0.000	-0.005	0.018	0.996	Not supported

Abbreviations: OCB: Organizational citizenship behavior.
Source: Primary data processed.

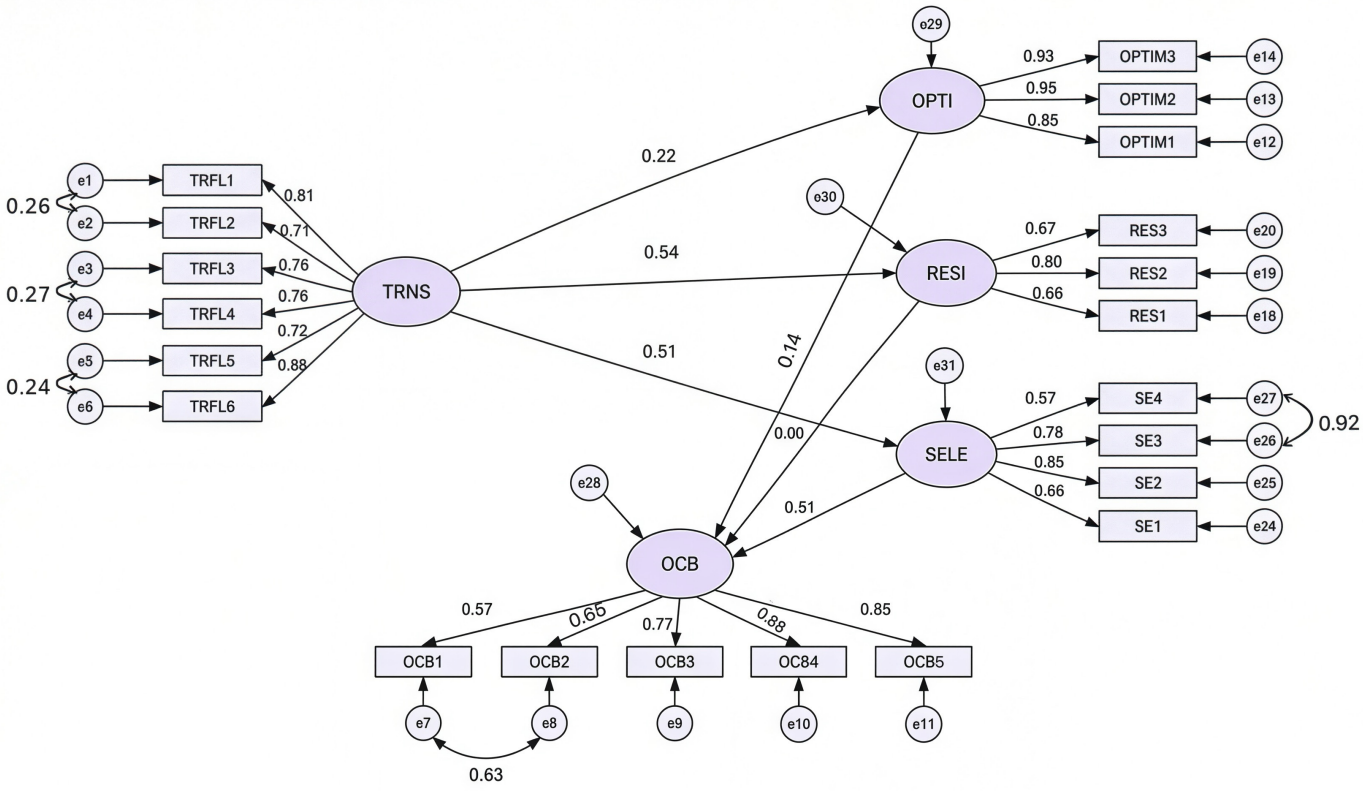

Figure 3. Structural model with relationships among the study constructs.

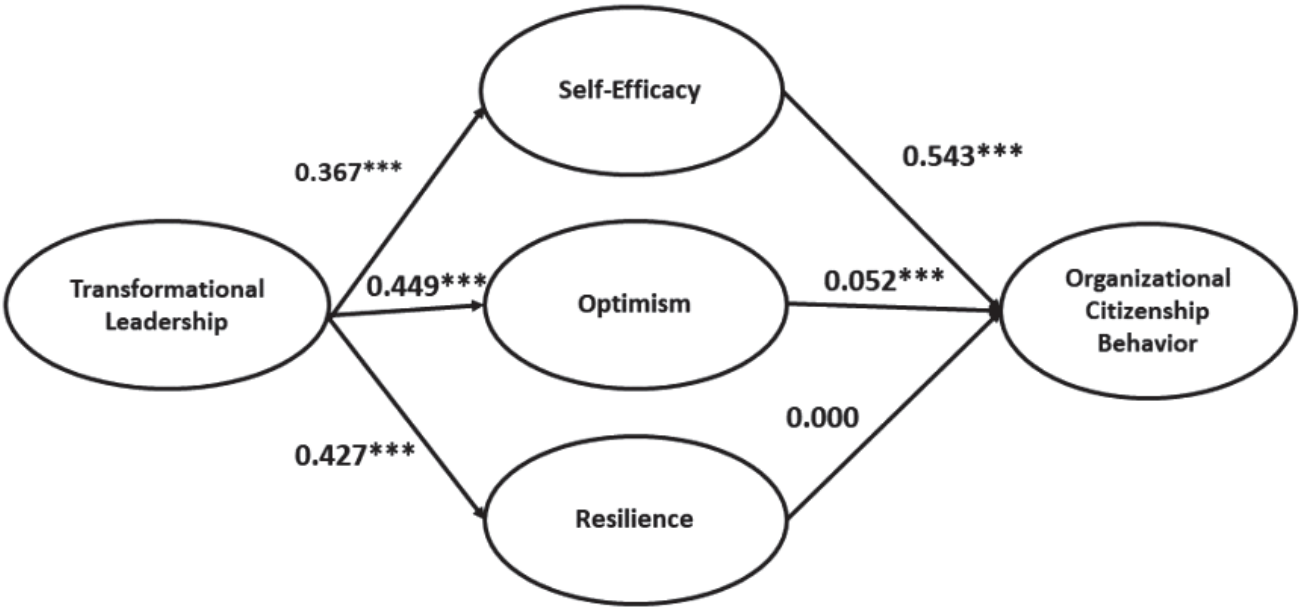

Figure 4. Testing of hypotheses–lower order constructs.

6.4 Testing of hypotheses

The hypotheses are organized into two complementary analytical models. The dimension-level model examines the separate associations of self-efficacy, optimism, and resilience with transformational leadership and organizational citizenship behavior (H1–H6). The higher-order model represents their shared psychological resources through a three-dimensional PsyCap construct and examines its mediating role alongside the direct structural relationships (H7–H10).

6.4.1 Lower-order structural model

The results presented in **Table 5** exhibit transformational leadership exert positive and statistically significant influence on PsyCap dimensions. In particular, transformational leadership is a significant predictor of self-efficacy (β=0.367, t=11.008, p<0.001), optimism (β=0.449, t=5.037, p<0.001), and resilience (β=0.427, t=9.801, p<0.001). This outcome is in consistent with transformational leadership theory, that posits individualized consideration, inspirational motivation and intellectual stimulation strengthens the followers confidence with positive expectations and adaptive capabilities (Bass, 1985; Bass & Riggio, 2006; Avolio & Gardner, 2005).

The effect analysis further reveal functional importance of these relationships. Transformational leadership exerted a medium effect on self-efficacy (f^2=0.216), a small to medium effect on optimism (f^2=0.075) and a negligible effect on resilience (f^2=0.015). This patterns reveal that transformational leadership is particularly effective in cultivating positive expectations and confidence, with the contribution of resilience is comparatively limited. The outcome aligns with positive organizational behavior theory that distinguishes between energizing psychological resources (self-efficacy and optimism) and protective resources (resilience) (Luthans et al., 2007, Yildiz, 2019).

The self-efficacy emerged as a significant predictor of OCB (β=0.543 t=9.482, p<0.001) with medium to large effect (f^2=0.264) and the finding supports the social cognitive theory that argues that confidence employees more willing to take initiatives with their voluntary behaviors and help others and exceed formal role requirements (Bandura, 1997, Stajkovic & Luthans, 1998). Optimism also positively

predictive OCB (β=0.052. t=3.536, p<0.001) although with a small to medium effect size (f^2=0.089) revealing supportive but a secondary role in fostering discretionary behaviors of employees. The employees with optimism will sustain voluntary effect as they forecast positive outcomes from their actions (Avey et al., 2011; Youssef & Luthans, 2007). significant predictors of organizational citizenship behavior.

In contrast, resilience effect is insignificant on organizational citizenship behavior (β=0.000, t=-0.005, p>0.05) with a negligible effect size (f^2=0.012). This finding aligns with the theory of emerging arguments that resilience functions as a conservation-oriented psychological resource enabling employees to maintain performance under stress and high-pressures situations rather than engaging in extra-role behavior (Yildiz, 2019). In high-pressure and high-demand work settings resilience employees prefer coping and recovery over discretionary behaviors.

6.4.2 Evaluation and validating of higher order constructs

This study modelled psychological capital as a higher-order/secondary order construct. Therefore, it is essential to assess the reliability, discriminant and convergent validities, assessing measurement and structural models. Thus, we have assessed the higher-order constructs psychological capital along with the lower order other two constructs organizational citizenship behavior and transformational leadership using the Fornell and Larcker (1981) Criterion and Heterotrait-Monotrait ratio (Henseler, 2015). The reliability and discriminant validity results are indicated in the **Table 6**.

Table 6. Discriminant/convergent validity with higher-ordered construct.

	Discriminant/convergent validity					**HTMT analysis**		
	CR	AVE	TRNS	OCB	PSYCAP	TRANS	OCB	PSYCAP
TRNS	0.880	0.552	0.743					
OCB	0.867	0.572	0.283***	0.756		0.262		
PSYCAP	0.704	0.588	0.552***	0.557***	0.766	0.452	0.447	

Source: Primary data processed.

Note: Bold values are square toot of AVE. Abbreviations: CR: Composite reliability; AVE: Average variance extracted; TRNS: Transformational leadership; PSYCAP: Psychological capital; OCB: Organizational citizenship behavior.

The outer loadings of higher constructs exceed 0.7, tolerance values are greater than 0.20, VIF values are below 4, and eigenvalues for all predictor constructs are not near zero. The condition index for every predictor variable is below 15. No multi-collinearity issues were found, so further analysis was conducted.

6.4.3 Measurement model with higher-order construct

The proposed measurement model includes three constructs: the higher-order construct psycap, and the two lower-order constructs transformational leadership and OCB. The model fit was excellent "CMIN/df" or "χ^2=471.227, df 178.000 χ^2/df=2.647, p<0.001, RMSEA=0.051, SRMR=0.058, CFI=0.963, NFI=0.942, TLI=0.956 and Pclose=0.357". The squared multiple correlation R^2=0.32 indicating that 32% of variance in organizational citizenship behavior explained by other two variables psychological capital and transformational leadership.

6.4.4 Structural model assessment and hypothesis testing with higher-order constructs

The PsyCap modelled as a higher order construct significantly predicted the

organizational citizenship behavior (β=0.919, t=4.481, p<0.001) with a medium size effect (f^2=0.166). The results highlights the central role of integrated psychological resources in enabling employees to engage in discretionary behaviors, which consistent with positive organizational behavior and social exchange theory (Avolio & Gardner, 2005; Luthans et al., 2007, Blau, 1964). Further, the transformational leadership significantly predicted the PsyCap (β=0.262, t=4.764, p<0.001) with a medium effect size (f^2=0.167) ratifying that leadership behaviors are important precursors of employees' psychological resource development (Avey et al., 2011; Gupta et al., 2017). However, transformational leadership is not a good predictor of organizational citizenship behavior as the results reveal a negative non-significant relationship (β=-0.026, t=-0.623, p>0.05) with small to medium effect size (f^2=0.128) (**Table 7**). This indicates that transformational leadership influences OCB through PsyCap rather through direct behavior control.

Table 7. Testing of hypotheses with psychological capital as higher order.

Relationship	β value	t-value	R^2	p value	Decision
H8:Transformational leadership→Organizational citizenship behavior	-0.026	-0.623	0.235	0.533	Not supported
H9:Psychological capital→organizational citizenship behavior	0.919	4.481	0.242	<0.001	Supported
H10: Transformational leadership→Psychological capital	0.262	4.764	0.233	<0.001	Supported

These findings are in consistent with past research exhibiting that leadership effects on OCB are largely indirect and operates through psychological and motivational mechanisms (Gupta et al., 2017; Abdulrab et al., 2020; Rodriguez-Cifuentes et al., 2020). By modelling PsyCap as higher order construct this empirical study extends this literature by revealing that leadership influence is transmitted through an integrated yet asymmetric psychological system.

6.4.5 Mediation analysis

A mediation analysis was carried out to test the mediating effects of psychological capital, a higher or construct on the relationship between transformational leadership and organizational citizenship behavior. The psychological capital fully mediated the relationship between transformational leadership and organizational citizenship behavior (β=-0.026, p>0.05). Indirect effect (β=0.268, 95% CI: 0.182-0.390, p=0.001) is statistically significant (**Figure 5**, **Table 8**). Our results are in line with the outcome of Rodríguez-Cifuentes et al., (2020).

Table 8. Results of bootstrapped mediation and sequential mediation analysis.

Relationship	Direct effect	Indirect effect	95% CI	p value	Result
H7: Transformational Leadership→Psychological Capital→Organizational citizenship behavior	-0.026	0.268	0.182, 0.390	0.001	Significant indirect effect

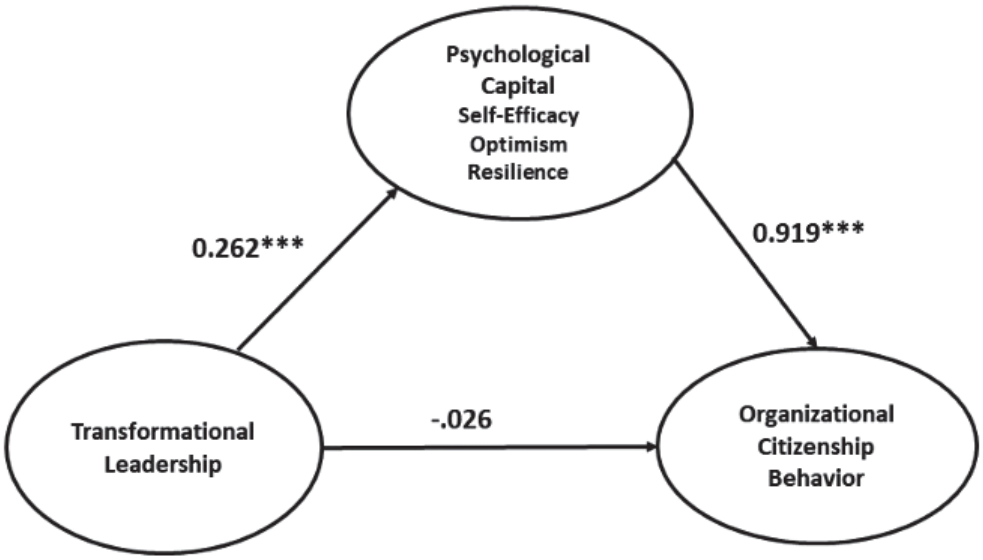

Figure 5. Mediation analysis Transformational leadership→Psychological capital→OCB.

7. Discussion

This empirical research will advance understanding of how transformational leadership fosters discretionary behaviors through OCB by investigating PsyCap an explanatory mechanism. The outcome provides a strong basis for supporting a mechanism-based explanation of leadership effectiveness exhibiting that transformational leadership impacts OCB primary through employees' internal psychological resources but not through direction behavioral control.

Corroborating the past findings, the transformational leadership demonstrated a significant positive association with OCB, strengthening well-established theory that inspirational, supportive and development oriented leadership promotes discretionary employee behavior (Podsakoff et al., 1990; Lopez-Dominguez et al., 2013). But, the magnitude of this association was substantially reduced on introduction of PsyCap into the model, revealing that leadership effect operates largely through psychological gateways. This finding is in line with the theories of leadership to move beyond direct effects and focus on the process through that leaders shape follower behavior (Khaola & Rambe, 2021).

The results reveal that transformational leadership significantly associated with self-efficacy, optimism and resilience. These findings concur with positive organizational behavior theories that supportive and empowering leadership behaviors nurture positive effects and adaptive capabilities (Luthans et al., 2007; Avolio & Gardner, 2005). The transformational leaders strengthen employee resource base by expressing confidence, outlining challenges as opportunities, providing individualized considerations. This is line with the earlier findings (Gupta et al., 2017; Abdulrab et al., 2020).

It was found that resilience did not have an effect on organizational citizenship behavior when testing the dimension level model (β=-0.000, p=0.996) failing to support H6. Perhaps resilience is related to overcoming obstacles but not doing extra work. Resilient workers may simply be able to cope with work and recover but that does not mean they will exhibit more OCB behaviors.

According to Conservation of Resources individuals will attempt to hold onto resources they have (Hobfoll, 1989). Workers who are resilient and faced with obstacles may focus on holding on to those resources and not expend more energy

doing other things. This is one explanation that can be made based on our data.

Employees may not show signs of OCB because they do not know what they can do for their organization. They may have the ability to overcome stress but if there is nothing in their job that allows them to display OCB they will not (Podsakoff et al., 2000). Our study did not look at these factors.

The beta value we found shows that resilience is not significant when looking at its relationship with OCB and controlling for self efficacy and optimism. There may be some factor that would cause resilience to have an effect on OCB. More research can look into what these factors may be.

Modeling PsyCap as lower-order construct the findings reveal differential effects of PsyCap sub-dimensions offering a new understanding than the pasts studies that treated PsyCap as a uniform construct. The PsyCap sub-dimension self-efficacy emerged as a strong predictor of OCB, concurring earlier research that confident employees takes initiative, assist colleagues and engage in discretionary and voluntary behaviors that benefit organization and improves organizational effectiveness (Bandura, 1997; Stajkovic & Luthans, 1998). Likewise, optimism positively associated with OCB, and is in line with the studies that positive expectations about future encourage persistence and discretionary behaviors in particular, demanding and high-pressure environments (Avey et al., 2011; Youssef & Luthans, 2007).

However, resilience exhibited an insignificant relationship on OCB. This outcome is deviates from the research studies that indirectly assume all positive psychological resource promote extra-role behaviors, and this aligns emerging theoretical findings that resilience functions primary as a protective or conservation-oriented resource (Yildiz, 2019). In high-demand and high pressure sectors like banking, healthcare and information technology employees with resilience prefer coping stress and maintaining performance rather discretionary role behaviors. This suggests that resilience support role survival than expansion, thus refining existing assumptions in PsyCap research.

The PsyCap modelled as higher-order construct significantly and the results support an indirect association through PsyCap as the bootstrap confidence interval excludes zero indicating significant indirect effect on the relationship between transformational leadership and OCB. The finding corroborates earlier research outcomes that deployed PsyCap as a mediator (Gupta et al., 2017; Abdulrab et al., 2020). However, the mediating pathways operates through integrated psychological mechanism characterized by unequal dimensional effects. The significant R2 values for PsyCap and OCB reveal that the model explains a meaningful proportion of variance highlighting explanatory power of psychological mechanism in leadership research.

As you can see above these are different associations when looking at each of the individuals psychological resources versus what we estimated from the higher order model. We found a positive association between transformational leadership and self-efficacy, optimism and resilience. There was also a positive association between self efficacy and OCB as well as optimism and OCB. Resilience did not have a significant association with OCB.

We found a significant positive association between our higher order PsyCap variable and OCB (β=0.919, p<0.001). The association between transformational leadership and OCB was non-significant when PsyCap was included in the model (β=−0.026, p=0.533). Therefore, we cannot say there is a significant positive association between the variables. To determine if PsyCap mediated the relationship

would depend on the bootstrapping of the indirect effect. It could be argued that the direct path being nonsignificant indicates a mediation but we cannot make that claim.

There was a significant indirect effect of transformational leadership on OCB through the composite variable of psychological capital which consisted of self-efficacy, optimism and resiliency (Indirect Estimate=0.268, 95% CI [0.182, 0.390], p=0.001). Once controlling for psychological capital transformational leadership was not significantly related to OCB (β=-0.026, p=0.533). This is in line with the hypothesis of an indirect effect. Although we cannot say there is no direct relationship or that psychological capital fully mediates the relationship.

Self-efficacy and optimism were significantly related to OCB at the dimensional level. There was no significant relationship found when looking at resiliency (p=0.996). One could argue that resiliency may help people cope and continue doing what they are supposed to do in times of duress. This was not looked at in our study. Also having significant effects from each dimension does not mean that there is an indirect effect for each one.

Since everything was collected at one time we can't conclude that transformational leadership leads to psychological capital and psychological capital leads to OCB. It is possible that things happened in the opposite order or something else caused these relationships. We only know that these relationships exist and follow the hypothesis that was created for this study.

All of these results are based off of cross sectional data. We cannot conclude that transformational leadership will cause someone to change their levels of psychological capital or OCB. Further studies need to be done to look at temporal ordering and possibly causation.

In summary, this empirical research's outcome suggests that transformational leadership fosters OCB not by direct relationship, but by developing and building psychological conditions–particularly self-efficacy and optimism that enable employees discretionary behaviors voluntary contributing beyond formal obligations.

8. Conclusions

We looked at the relationship between transformational leadership, psychological capital and organizational citizenship behavior in 488 individuals who work in banking, medical field and information technology industries in India. There was a positive relationship found between transformational leadership and self-efficacy, optimism and resiliency. Self efficacy and optimism had a positive relationship with OCB and resiliency did not show a conditionally significant relationship with OCB.

Results from the higher order model showed that there was an indirect relationship between transformational leadership and OCB through the three dimensional construct of psychological capital. A direct relationship was also found to be non-significant. While these results support the hypothesis of an indirect relationship they do not prove significant indirect effect or causation. These results are applicable to how we operationalized our variables without including hope. More studies using longitudinal designs or experimental designs should be used to test for time ordering and further test our hypothesized relationship.

9. Theoretical implications

This empirical study advances transformational leadership theory by placing PsyCap as a central mediating pathway mechanism that explains how leadership behaviors are internalized translated into voluntary and discretionary behaviors. This

moves the focus from leadership behaviors per se to psychological processes through which transformational leadership exerts influence.

The findings further sophisticate organizational behavior theory by challenging the supposition that PsyCap dimensions uniformly promote positive outcomes. The insignificant association between resilience and OCB posit that psychological resources serve different functional roles, with some enabling voluntary contribution and other supporting endurance and recovery. This calls a greater accuracy in theory in conceptualization and operation of PsyCap.

The higher order modelling of PsyCap bridges the micro-level psychological states and macro level outcomes responding to calls more integrative and multi-level theorization of leadership research. By exhibiting unequal effects with a higher order construct the study encourages future research may move beyond additive models and investigate the dynamic interplay among psychological resources.

10. Practical implications

The leaders should recognize that fostering OCB needs more than articulating theories and inspiring followers or rewarding voluntary behaviors; building employees' psychological confidence and optimism is the need of the hour. Leadership development programs should emphasize to enhance self-efficacy, provide mastery experiences, constructive feedback, provide autonomy-supportive leadership.

The resilience training is important for sustaining well-being in high-pressure and high-stress work settings, however, organizations should not assume resilience alone can encourage OCB. Extreme emphasis on resilience without consistent support to optimism and self-efficacy involuntarily strengthen role maintenance rather than discretionary behaviors.

The high-demand and high-professional environments the organizations should practice a balanced approach to leadership and employee development that avoids over-reliance on OCB. Promoting discretionary or voluntary behaviors without adequate psychological support risks employee strain and burnout, undermining organizations long-term effectiveness

11. Limitations and future directions

Though the study contributes to the leadership research, the study does have some limitations that provide scope for future research. The cross-sectional design limits causal inference. Longitude or experimental designs would provide stronger and more generalizable contributions in the context of progressive dynamics of leadership, PsyCap development and OCB.

Due to the lack of hope there are not all topics that can be addressed by the PsyCap scale. The reliability and validity established for these variables cannot conclude that the 4 variable construct was assessed. Therefore, all results found in this study should be compared to other studies that use the full PsyCap measure. Further research should assess the PsyCap scale with hope and see if this will change its factor structure and path coefficients and any indirect effects.

Different industries can play a role on how leaders are viewed and their ability to display psychological resources and perform OCBs. Some industries may have higher needs for leaders and extra effort from their employees. Banking has regulations they need to follow, health care need to take care of patients and information technology may have high work load on their projects. Since this study looked at all participants combined we did not look into each industry. Our sample was made up mostly of

information technology (57.17%) which can affect our results. These relationships may not apply to other industries as well. Future studies can gather equal amounts of each sector and conduct multi-group analyses after establishing measurement invariance.

The reliance on self-reported data may raise the common method bias, though the study has taken considerable measures to limit the bias. The future studies could employ multi-source data, like peer-rated OCB, objective performance indicators that enhance methodological rigor and robustness. The study mainly focussed on PsyCap dimensions excluding hope. The future research should investigate whether the dimension hope exerts similar or different effects on discretionary behavior, goal-directed OCB in particular.

The future studies should include contextual moderators like workload, job demands of cultural values, to identify boundary conditions under which psychological resources translate into discretionary behaviors and OCB. Further, compare cross-sectional research to clarify the generalizability of the outcome and deep dive into understanding of leadership effectiveness across diverse organizational contexts.

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Ethical approval: Ethical review and approval were exempted by the Institute Research Committee, Symbiosis Institute of Business Management, Hyderabad, Symbiosis International (Deemed University), through Letter No. IRC/8/2026 dated 8 January 2026. The study was conducted in accordance with the principles of the Declaration of Helsinki, as revised in 2013. Before completing the online questionnaire, all participants received information about the study's purpose, procedures, voluntary nature, potential risks and benefits, confidentiality safeguards, and intended use of the data. Participants provided informed consent electronically. No personally identifying information was collected, and participants could discontinue the survey at any stage without penalty or loss of benefits.

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