

Empowering Leadership and Organizational Citizenship: The Mediating Role of Psychological Capital

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This study aimed to investigate the predictive relationship of secondary school teachers' empowering leadership (EL) perceptions and psychological capital (PC) levels with their organizational citizenship behaviors (OCB), and to examine the mediating role of psychological capital in the relationship between teachers' EL perceptions and OCB. This study employed a correlational survey design. Data were collected from 365 teachers working in secondary schools in Erzurum, Türkiye, during the 2024–2025 academic year. Participants were selected using a two-stage random cluster sampling method. After data screening, eight multivariate outliers were excluded, resulting in a final analytical sample of 357 teachers. Data were collected using a personal information form, the Organizational Citizenship Behavior Scale, the Empowering Leadership Scale, and the Psychological Capital Scale, and were analyzed using SPSS (Version 27) and the PROCESS macro. Correlation coefficients were calculated to examine the relationships among the variables. Hayes' PROCESS Model 4 was used to test the predictive relationships and the mediating role of psychological capital. The analyses revealed statistically significant relationships among teachers' EL perceptions, PC levels, and OCB. Regression and mediation analyses indicated that EL and PC significantly predicted OCB. Furthermore, psychological capital mediated the relationship between empowering leadership and organizational citizenship behavior. This study provides empirical evidence for the predictive and mediating role of psychological capital in the relationship between empowering leadership and organizational citizenship behavior.

Introduction

Teachers' organizational performance and behaviors play a pivotal role in students' academic achievement and personal development. Studies have demonstrated that teachers' professional satisfaction (Murwaningsih, 2024), life satisfaction (Cayupe et al., 2023), and commitment (Hermanto et al., 2024) enhance their productivity in schools. Despite

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comprehensive studies on methods to increase productivity in organizations, in today's competitive environment among institutions, schools' primary objective is to encourage voluntary, discretionary behaviors among employees. Employees' willingness to engage in voluntary behaviors in schools can be explained by organizational citizenship behaviors.

Organizational citizenship behavior (OCB) refers to employees voluntarily helping others outside their formal role definition, thereby contributing to the organization's growth while supporting cooperation and positive relationships among employees (Bozkurt, 2018; Çoloğlu, 2018; LePine et al., 2002; Podsakoff & MacKenzie, 1997). Defined as contributing to organizational goals voluntarily, OCB is among the important issues for organizations as it enhances managerial effectiveness (Şeşen & Basım, 2010).

Previous research suggests that managerial characteristics in organizations affect employees' OCB (Podsakoff et al., 2000). Leadership characteristics are among the factors affecting OCB, as managerial characteristics influence the attitudes and behaviors of employees. Employees' behaviors are influenced by the attitudes displayed by their managers, leading employees to reciprocate. Therefore, managerial behaviors create conditions for employees' positive or negative impact on the organization. For instance, employees develop trust in their managers because of the favorable treatment they receive from them and feel obligated to reciprocate (Dirks & Ferrin, 2002). This reciprocation can manifest as OCB, which means engaging in extra-role behavior for the organization (Wang et al., 2022). Blau (1986) explained the situation by means of Social Exchange Theory (SET), suggesting that one person does another a favor, and while there is a general expectation of some future return, its exact nature is definitely not stipulated in advance.

Numerous studies have examined several leadership styles affecting OCB because it is believed that managerial characteristics affect employee attitudes and behavior (Newman et al., 2017; Yang & Wei, 2018). One of these leadership styles is empowering leadership (EL), a contemporary leadership approach (Shahab et al., 2018). EL consists of a set of behaviors aiming to increase employees' perceived meaningfulness and confidence regarding their work, participation in decision-making and autonomy. In this sense, while EL ensures employees' active participation in the decision-making process, it seeks to help employees develop their abilities and increase their self-efficacy (Arnold et al., 2000; Manz & Sims, 1987). Empowering leaders promote a supportive and inclusive organizational climate where employees feel valued, trusted, and empowered to make meaningful contributions to the organization (Spreitzer, 1995). To increase organizational commitment, leaders provide the necessary resources, support, and opportunities for employees to develop their potential. They also offer reinforcement in cases of more effective performance (Carmeli et al., 2010). Employees may reciprocate through organizational citizenship behaviors in response to this supportive leadership attitude, consistent with Social Exchange Theory (Blau, 1986; Shahab et al., 2018). The supportive behaviors of empowering leaders positively affect employees' psychological states in addition to fostering their organizational citizenship behaviors, contributing to success, vitality, and both institutional and psychological satisfaction in the workplace (Porath et al., 2012). In this sense, EL emerges as a leadership approach that serves to increase employees' OCB (Conger & Kanungo, 1988) and positively influence their psychological well-being (Gyu Park et al., 2017).

Individuals' psychological states are another factor affecting employees' OCB (Podsakoff et al., 2000). This emphasizes the importance of psychological capital (PC), which refers to employees' psychological integrity within the organization. The concept of PC, which emerged based on the positive psychology approach that highlights the human element in organizations,

discusses the importance of employees' psychological well-being in work environments and its impact on the organization. According to this approach, an increase in employees' and managers' hopes for the future, a rise in their resilience against challenging events, their ability to handle events and situations effectively, and their desire for self-actualization are determining factors in achieving organizational goals (Luthans et al., 2007). High levels of hope, psychological resilience, and self-efficacy in employees motivate them to exhibit individual and organizational performance (Shahab et al., 2018). From this perspective, PC is associated with OCB (Sri Ramalu & Janadari, 2022).

PC is recognized as an important factor shaping teachers' thoughts and behaviors in schools, directly affecting their personal and professional development. Since PC improves individuals' general well-being and psychological health, this naturally affects teachers' behaviors as well. According to Garg and Dhar (2016), positive attitudes of psychologically empowered employees toward their work cause them to be more contributive toward their institutions. Therefore, it can be argued that employees with higher psychological capital are more likely to engage in OCB, demonstrating the effect of PC on OCB (Lalita & Singh, 2019).

Today, schools need both PC and organizational citizenship behaviors to provide quality educational services. This is because they are increasingly confronted with complex and rapidly changing challenges. Problems such as cyberbullying and real-world bullying, political and social turmoil, environmental problems and disasters, irregular migration, sexual abuse, poverty, and adaptation to global-scale technological developments affect the motivation and organizational behavior of school stakeholders, especially employees. Therefore, there is a need for more research on predictor variables that can increase OCB in schools. The increase in the number of studies on positive psychology, psychological resilience, and PC in organizations in recent years supports this opinion (Çelik & Atmaca, 2023; Zewude & Hercz, 2021).

The purpose of this research was to reveal the mediating role of PC in the effect of teachers' EL perceptions on their OCB. Particularly in schools with bureaucratic structures managed by central top management, examining variables that predict these behaviors to develop employees' OCB may contribute to the theoretical and empirical knowledge base of OCB. The current study demonstrated the applicability of the EL approach to support school autonomy in educational systems characterized by central organizational structures, providing an in-depth investigation of a concept not yet widely applied in educational institutions. In this context, the study offers a holistic perspective on the phenomena examined while revealing the extent to which teachers are affected by managerial behaviors (Ahn & Wang, 2024; Yılmaz, 2018). Based on the literature review, there are studies that examined the relationships between OCB, EL, and PC; however, to our knowledge, no previous study has examined these three constructs simultaneously. Therefore, the findings of the present study help address this gap in the literature.

Theoretical Framework and Hypothesis Development

The relationships among organizational structure, managerial behavior, employee attitudes, and motivation have frequently been explained through Social Exchange Theory (SET) (Cropanzano & Mitchell, 2005; Cropanzano et al., 2017; Tokgöz, 2011). This study is grounded in Blau's SET, proposing that EL positively affects teachers' PC and OCB. Blau (1986) defined social exchange as a process involving reciprocal transactions of benefits between parties, which are voluntary and necessary for the organization. The explanations that SET provides for voluntary extra-role behaviors share a common conceptual foundation with

OCB (Argon & Çelik-Yılmaz, 2018; Kuşkonmaz-Çildir, 2008), thereby providing the theoretical basis for the study hypotheses.

According to SET, relationships in an organization consist of mutual exchange, or reciprocal exchange processes. This process is not governed by fixed rules and is not necessarily performed for the purpose of reciprocation. Even when reciprocation is not immediate or explicit, such exchanges can still positively affect the organization and its employees (Ahmad et al., 2023). Empowering leaders value and support employees in the organization by delegating authority and responsibility. Employees' psychological well-being is positively affected by the support they receive from their manager, and as a result, they develop a positive attitude toward their manager and organization and engage in organizational citizenship behaviors (Argon & Çelik-Yılmaz, 2018). Employees' reciprocal behaviors in response to the value they receive and their tendency to reciprocate are explained by SET (Cropanzano & Mitchell, 2005; Eisenberger et al., 1986).

In educational environments, the principle of reciprocity in Social Exchange Theory is effective in fostering mutually beneficial relationships (Argon & Çelik-Yılmaz, 2018). Reciprocity is performed to establish a balance of give-and-take, and it should be done voluntarily. Schools, as open social systems characterized by intensive interpersonal interaction, are organizations where such exchange naturally arises. In this process, supportive leadership behaviors toward teachers are important for fostering teachers' positive attitudes toward school and for the effective functioning of teaching and learning (Sezgin-Nartgün & Kalay, 2014; Yarıcı & Özbaş, 2021). Accordingly, the study hypotheses are grounded in Social Exchange Theory.

The Relationship between Empowering Leadership and Psychological Capital

One of the key factors influencing employees' psychological capital is the attitude of leaders in the organization where they work. Leaders and employees are in constant interaction within the organization. Supportive leader–employee interactions are expected to enhance employees' psychological capital. Empowering leaders who seek to develop employees' self-efficacy are effective in increasing their PC (Akdeniz, 2023; Luthans et al., 2007). The concept of psychological capital, which is based on the individual's ability to recognize and manage their own potential, aligns closely with empowering leadership practices that facilitate employees' self-leadership. The school administrator's supportive attitude, combined with information-sharing, delegating responsibility, and delegating authority, increases teachers' PC (Akdeniz, 2023; Karagözoğlu, 2022). Hypothesis 1, which was developed based on the literature and proposing a positive relationship between school administrators' EL behaviors and teachers' PC levels, is as follows:

H1. School administrators' EL behaviors positively predict teachers' PC levels.

The Relationship between Empowering Leadership and Organizational Citizenship Behavior

Schools are organizations that rely heavily on positive organizational behaviors within human-centered work systems, where employees are expected to engage in voluntary and committed behaviors (Uğurlu et al., 2017). In other words, as in other organizations, organizational citizenship behavior is a key component of effective school functioning (Eker-Okalaner, 2023). Leaders' attitude and approach are important in employees' engaging in extra-role behaviors. School administrators' leadership practices toward teachers play a crucial role in teachers' achieving their goals and being motivated. In this case, it is important to consider



the effects of managerial behaviors in school on teachers' perspectives toward the school and their behavior within it (Akdeniz, 2023). The EL approach ensures that employees perform their roles effectively by giving them authority, support, and responsibility. Empowering leaders provide autonomy to employees, enabling them to take initiative. They also support employees' professional development and openness to innovation while motivating them to take responsibility. In organizations where leaders have these characteristics, employees develop greater self-confidence, and thanks to their optimism, they perceive greater autonomy and do not hesitate to work toward organizational goals (Saleem et al., 2020). Consequently, employees are more likely to engage in extra-role behaviors, that is, exhibit OCB. Based on previous research, the literature suggests a positive relationship between OCB and EL. Accordingly, Hypothesis 2 was developed as follows.

H2. School administrators' EL behaviors are a significant predictor of teachers' OCB.

Psychological Capital and Organizational Citizenship Behavior

According to the PC approach, high levels of hope, psychological resilience, and self-efficacy in employees are motivating both in the employee's individual performance and in their performance to achieve the organization's goals. PC enables employees to work more motivated while increasing productivity in the organization; it is also influential not only in the existing situation but also in the development and empowerment of the individual and organization. If an employee's PC is high, it is assumed that their desire to engage in voluntary behavior for the organization increases (Shahab et al., 2018). This assumption suggests that there is a relationship between teachers' PC levels and OCB. Based on this, the assumed Hypothesis 3 was developed as follows:

H3. Teachers' PC level significantly predicts OCB.

Psychological Capital as a Mediator between Empowering Leadership and Organizational Citizenship Behavior

Many studies have discussed PC as a mediating variable (Küçük, 2020; Mdookh, 2022; Yılmaz, 2024). However, the present study examined psychological capital as a mediator to better understand how teachers' psychological capital is also effective in explaining the school administrator's effect on teachers' behaviors. Although teachers' EL perceptions have a direct effect on OCB, teachers' psychological capital increases the strength of this relationship as a mediating variable.

Empowering leadership is expected to promote teachers' OCB. However, the assumption that teachers' PC has a mediating effect between EL perception and OCB is based on the role of individual psychological characteristics among factors affecting OCB. Previous studies support the assumption that PC mediates the relationship between leadership behavior and employee behavior (Küçük, 2020; Mdookh, 2022; Podsakoff et al., 2000).

Teachers with high levels of psychological capital are more likely to exhibit organizational citizenship behaviors (Bogler & Somech, 2021; Lalita & Singh, 2019; Lape, 2024). Furthermore, a significant relationship exists between psychological resilience, self-efficacy, psychological empowerment, and empowering leadership (Dağlı & Kalkan, 2021; Shahab et al., 2018; Soylu & Okçu, 2022). These findings suggest that PC has a mediating role in the relationship between teachers' EL perceptions and OCB. Based on the literature, Hypothesis 4 is proposed as follows.

H4. Teachers' PC levels have a mediating role in the relationship between school

administrators' EL behaviors and teachers' OC behaviors.

Research Model

Figure 1 shows the hypothesized relationships, which were developed based on the literature, between EL, PC, and OCB constructs. Hayes' PROCESS Model 4 was used to test the direct relationships and the mediating effect of psychological capital.

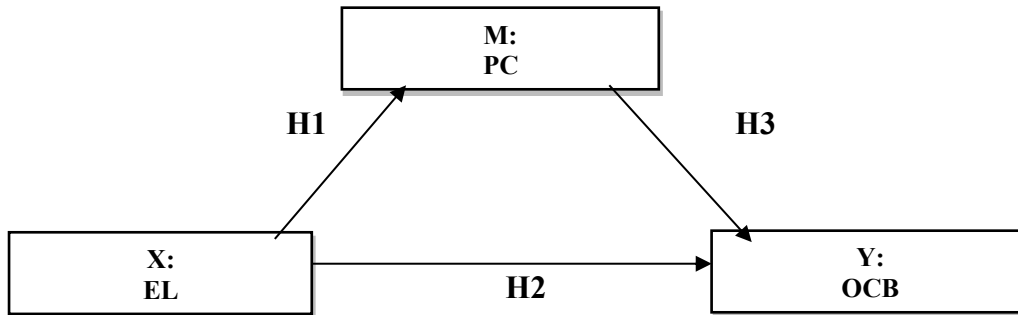


Figure 1. Research Model

Method

Research Design

The present study aimed to examine the mediating role of psychological capital in the relationship between teachers' EL perceptions and OCB. The study included three variables: EL as the independent variable, OCB as the dependent variable, and PC as the mediating variable. A correlational survey design, one of the quantitative research methods, was employed to examine the relationships among the variables, including their direction and strength (Büyüköztürk, 2023).

Population and Sample

This study was conducted with teachers working in secondary schools in the city center of Erzurum, Türkiye, during the 2024–2025 academic year. Secondary schools were preferred because students' academic, social, and emotional needs become increasingly diverse at this level, and teachers typically engage in more complex instructional and interpersonal interactions with their students. The feasibility of data collection at this level and its relevance to local needs also informed the selection of the study context.

A two-stage random cluster sampling method was used. The population included teachers working in Erzurum Province, Türkiye. The three central districts of Erzurum were treated as sampling clusters, and schools within these clusters were randomly selected to constitute the study sample (Özmen, 2000, p. 182). In the second stage, teachers were randomly selected from the sampled schools in each district. Of the population of 1,485 teachers, 365 teachers who voluntarily participated in the study completed the questionnaire. Based on the population-sample table calculated for different sizes by Adam (2020), the resulting sample was adequate for the target population at a 95% confidence interval (CI).

In the study, 63.6% of the participants were female, and 36.4% were male; 60.8% were aged between 20 and 39, and 39.2% were aged between 40 and 50. Of the participants, 21.0% had 1-8 years, 50.4% had 9-17 years, and 28.6% had 18 years or more of professional experience.

As for the duration at the current school, 34.2% worked for 1–3 years, 27.2% worked for 4–6 years, and 38.6% worked for 7 years or more. Finally, 31.7% of the participants worked in schools with 300 or fewer students, 25.5% worked in schools with 301–600 students, and 42.8% worked in schools with 600 or more students.

Data Collection Tools

Organizational Citizenship Behavior Scale

The Organizational Citizenship Behavior Scale (OCBS) was originally conceptualized by Organ (1988) and subsequently operationalized by Podsakoff and MacKenzie (1989). The OCBS was further refined by Podsakoff et al. (1990) and Moorman (1991). The OCBS is a 20-item, five-point Likert-type scale with response options ranging from 1 ("never") to 5 ("always"). The Turkish version adapted by Polat (2007) was used in this study. In the current study, Cronbach's alpha was .89. The CFA results supported the construct validity of the scale.

Empowering Leadership Scale

The Empowering Leadership Scale (ELS) was developed by Konczak et al. (2000). The ELS is a 17-item, five-point Likert-type scale with response options ranging from 1 ("never") to 5 ("always"). The Turkish version adapted by Konan and Çelik (2018) was used in this study. The scale comprises three subdimensions: in the adaptation study, Cronbach's alpha coefficients for the three subdimensions were .76 (delegation of authority), .82 (accountability), and .80 (encouragement). The CFA results supported the construct validity of the scale.

Psychological Capital Scale

The Psychological Capital Scale (PCS) was developed by Luthans et al. (2007). The PCS is a 24-item, six-point Likert-type scale with response options ranging from 1 ("Strongly disagree") to 6 ("Strongly agree"). The Turkish version adapted by Çetin and Basım (2012) was used in this study. In the current study, Cronbach's alpha was .89. The CFA results supported the construct validity of the scale.

Data Analysis

Descriptive and correlational analyses of the collected data were conducted using SPSS (Version 27) software. Before conducting the analyses, the dataset was examined for potential data entry errors and missing values. For missing data, three missing values were imputed using item means in SPSS. The reverse-worded items were reverse-coded.

Although the scales used in the study consisted of multiple dimensions, the confirmatory factor analysis results indicated that these dimensions loaded onto higher-order latent constructs. Furthermore, the purpose of the study was not to examine the relationships among the subdimensions but rather to investigate the overall relationships among empowering leadership, PC, and OCB. Using total scores was also consistent with the theoretical model tested in this study, which conceptualized EL, PC, and OCB accordingly. Therefore, total scores were used in the analyses instead of subdimension scores.

To assess the validity of the measurement model, confirmatory factor analysis (CFA) was conducted. The results indicated an acceptable model fit ($\chi^2/df = 3.766$, $p < .001$, CFI = .940, GFI = .935, RMSEA = .088, SRMR = .062). Given that all variables were collected through

self-report measures at a single point in time, common method variance (CMV) was considered a potential limitation of the study. Nevertheless, the CFA results supported the construct validity of the measurement model.

Harman's single-factor test was conducted to assess the potential influence of CMV. The results revealed 11 factors with eigenvalues greater than 1, with the first factor accounting for 26.749% of the total variance. Since this value was below the recommended 50% threshold, CMV was not considered a serious threat to the study findings (Podsakoff et al., 2003). After establishing the validity and reliability of the measurement model, descriptive statistics and correlation analyses were performed.

Before conducting the regression-based analyses, the assumptions underlying regression analysis were assessed. To assess normality, arithmetic mean, median, skewness, kurtosis, z-scores, histograms, and scatter diagrams were examined. Multicollinearity was assessed using variance inflation factor (VIF) values, and the results indicated no multicollinearity concerns ($VIF = 1.266 < 5$). The independence of residuals was evaluated using the Durbin–Watson statistic, which fell within the acceptable range ($1.5 < DW = 2.030 < 2.5$). Eight cases were identified as multivariate outliers and excluded from the analysis. After outlier screening, repeated tests indicated that the data adequately met the assumptions of regression analysis.

Finally, the regression-based mediation analysis was conducted using the PROCESS macro for SPSS (Model 4; Hayes, 2022). After the descriptive analysis, correlations between the variables were examined to determine the direction and strength of the predictive relationships among the variables. To explore the mediating role of psychological capital, bias-corrected bootstrapping with 5,000 resamples was used in the PROCESS macro.

Validity and Reliability

The measurement tools for this study were selected based on their theoretical foundation, scope, face validity, and established psychometric properties, including prior validity and reliability evidence. Previous applications of the scales were reviewed, and they were found appropriate for the focus of the current study. Cronbach's alpha and second-order CFA were conducted to test the validity and reliability of the scales with the existing data.

Cronbach's alpha values, assessing the internal consistency of the scales used in the study, were found to be as follows: OCBS = .84, ELS = .93, and PCS = .87. These results indicated that the measurement tools were reliable. To confirm the construct validity of the scales, second-order CFA was conducted, and degrees of freedom (df), comparative fit index (CFI), root mean square error of approximation (RMSEA), and standardized root mean square residual (SRMR) were calculated. For the OCBS, the CFA results were: $\chi^2/df = 2.304$, $p < .001$, RMSEA = .061, GFI = .903, CFI = .906, SRMR = .0562. For the ELS, the results were: $\chi^2/df = 3.061$, $p < .001$, RMSEA = .076, GFI = .892, CFI = .950, SRMR = .0693. For the PCS, the results were: $\chi^2/df = 3.184$, $p < .001$, RMSEA = .078, GFI = .839, CFI = .863, SRMR = .0652, indicating acceptable but modest model fit. According to commonly accepted criteria, $\chi^2/df < 5$ and RMSEA $< .08$ demonstrated acceptable model fit for all three scales (Erkorkmaz et al., 2013; Kline, 2011; Seçer, 2013).

Convergent validity was assessed using composite reliability (CR) and average variance extracted (AVE) values. All factors in the ELS had AVE $> .50$ and CR $> .70$. OCBS and PCS yielded AVE values below .50, but the items met the CR $> .70$ criterion. According to Fornell and Larcker (1981), CR values $\geq .70$ can provide evidence of convergent validity even when

AVE is below .50.

Research Process

Before initiating the research process, a comprehensive review of the literature was conducted to establish the research gap. To the authors' knowledge, no previous study has examined these three variables simultaneously. Similarly, based on the literature review, relevant scales were examined, and those considered theoretically appropriate were selected for use in the present study.

After obtaining the necessary institutional and ethical approvals, data collection began. Participation was entirely voluntary, and no intervention was implemented. The participating teachers were provided with a written informed consent form outlining the ethical principles, purpose and significance of the study.

During the data analysis process, data were carefully screened when transferring the data into statistical software. The data were checked for data entry errors, and any entries that could potentially affect the results were excluded from the analysis. The data were stored securely, and participant confidentiality was maintained; the identities of the participants were fully protected. Data were analyzed following established statistical procedures, and the results were reported accurately and transparently. The study limitations were reported transparently.

Ethical approval was obtained from Atatürk University Graduate School of Educational Sciences (30.09.2024). Institutional permission for the research instruments and study implementation was subsequently granted by the Erzurum Provincial Directorate of National Education (09.10.2024).

Results

Descriptive Statistics and Correlation Analysis

Descriptive statistics and correlation results for all variables are presented in Table 1. The mean (M) and standard deviation (SD) scores for OCB, EL, and PC were 4.262 (SD = .417), 3.887 (SD = .678), and 4.941 (SD = .492), respectively.

The correlation analysis revealed a moderately positive relationship between teachers' EL perceptions and PC ($r = .460$), and between EL perceptions and OCB ($r = .483$). These findings indicate that higher EL perceptions were associated with moderate increases in PC and OCB. Additionally, a moderately positive correlation was found between teachers' PC and OCB ($r = .621$). This indicates that higher PC among teachers was associated with an increase in their OCB. Overall, the variables showed moderate positive correlations among OCB, EL, and PC.

Table 1. Descriptive Statistics and Correlation Results

Variable	$\bar{x}$	SD	1	2	3
1. Organizational Citizenship Behavior	4.262	.417	1		
2. Empowering Leadership Perception	3.887	.678	.483**	1	
3. Psychological Capital Level	4.941	.492	.621**	.460**	1

** $p < .01$, $\bar{x}$: Mean, SD: Standard deviation

Hypothesis Testing

The results of the regression and mediation analyses are presented in Table 2. Table 2 summarizes the regression paths between EL and PC (path a), EL and OCB (direct effect, c'), and PC and OCB (path b).

Table 2. Regression Analysis Results of the Variables

Dependent Variables												
	Psychological Capital						Organizational Citizenship Behaviors					
	95% Confidence Intervals						95% Confidence Intervals					
Independent Variables	B	SE	t	LLCI	ULCI		B	SE	t	LLCI	ULCI	
EL	a	.334***	.034	9.759	.266	.401	c'	.154***	.027	5.577	.100	.208
PC	-	-	-	-	-	-	b	.429***	.038	11.236	.353	.503
constant	I _M	3.644***	.135	27.00	3.378	3.909	I _Y	1.543***	.169	9.102	1.209	1.876
R ² = .212							R ² = .435					
F _(1;355) = 95.255; <i>p</i> < .001							F _(2;354) = 136.365; <i>p</i> < .001					

$p < .001^{***}$; B: Unstandardized beta coefficient, SE: Standard error, EL: empowering leadership, PC: Psychological capital, R^2 : Coefficient of determination, LLCI: Lower level confidence interval, ULCI: Upper level confidence interval, F: F statistic.

EL ($B = .154$, 95% CI = [.100, .208], $t = 5.577$, $p < .001$) and PC ($B = .429$, 95% CI = [.353, .503], $t = 11.236$, $p < .001$) significantly and positively predicted OCB. Together, EL and PC accounted for approximately 44% of the variance in teachers' OCB ($R^2 = .435$). School administrators' empowering leadership significantly predicted teachers' psychological capital, accounting for 21% of its variance ($R^2 = .212$). The total effect of EL on OCB was significant ($c = .297$, $p < .01$), and the direct effect remained significant after accounting for the mediator ($c' = .154$, $p < .01$). The indirect effect of EL on OCB through PC was .143 (95% CI = [.104, .185]), indicating that psychological capital significantly mediated the relationship between empowering leadership and organizational citizenship behavior. The hypothesized mediation model is presented in Figure 2.

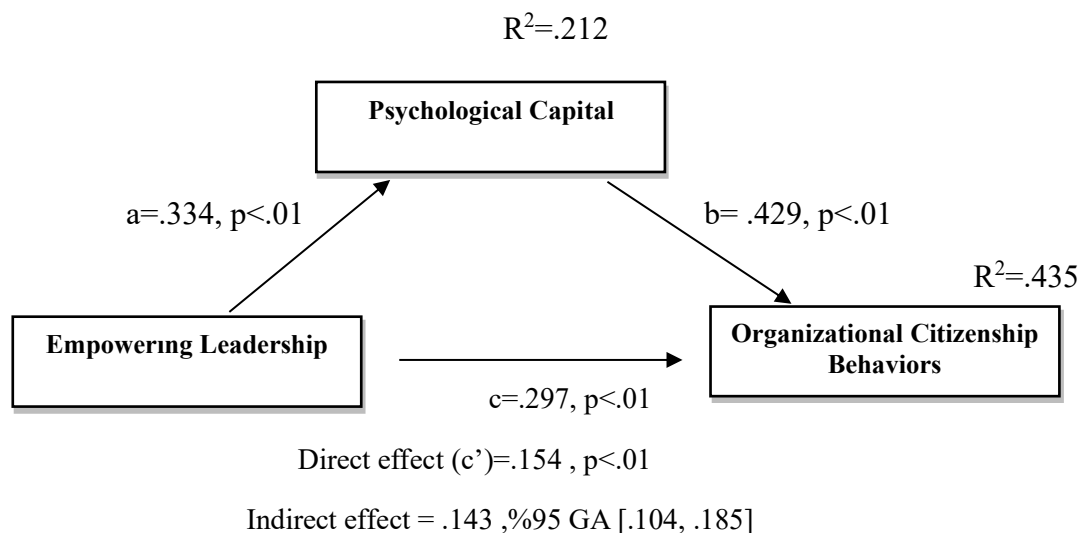


Figure 2. The Mediating Role of Psychological Capital in the Relationship Between Empowering Leadership and Organizational Citizenship Behavior

Figure 2 shows that the inclusion of PC in the relationship between EL and OCB reduced the strength of the association between EL and OCB, but the direct effect remained statistically significant ($c' = .154$, $p < .01$, 95% CI [.100, .208]). This indicates that the direct association between empowering leadership and OCB remained significant after accounting for psychological capital, with school administrators' EL behaviors continuing to affect OCB partly through teachers' psychological capital. The indirect effect of EL on OCB through psychological capital was .143 (95% CI [.104, .185]).

To examine the mediating role of psychological capital in the relationship between administrators' empowering leadership and teachers' organizational citizenship behavior, a mediation analysis was conducted using bias-corrected bootstrapping. The analysis results are presented in Table 3. In the bootstrap analysis performed with 5,000 bootstrap resamples, bias-corrected accelerated (BCa) 95% confidence intervals were reported to assess the significance of the results. Effect size was interpreted using the completely standardized indirect effect (K^2). Values close to $K^2 = .01$, .09, and .25 were interpreted as low, medium, and high effects, respectively (Gürbüz, 2019).

Table 3. Mediation Analysis Results for the Relationship Between Empowering Leadership and Organizational Citizenship Behavior Through Psychological Capital

Effects of Relationships Between Variables	Impact Coefficient	%95 Confidence Interval		Bootstrap %95 Confidence Interval	
		LLCI	ULCI	BootLLCI	BootULCI
<i>Total Effect</i>	.297***	.241	.353	-	-
EL--->OC					
<i>Direct Effect</i>	.154***	.100	.208	-	-
EL--->OC					
<i>Indirect Effect</i>	.143				
EL--->PC--->OC		-	-	.103	.184
<i>Fully Standardized Effect</i>	.233				
EL--->PC--->OC		-	-	.174	.290

The Bootstrap results are based on a resampled group of 5000 individuals. *** $p < .001$; EL: Empowering leadership, PC: Psychological Capital, OC: Organizational Citizenship Behavior, LLCI: Lower-Level Confidence Interval, ULCI: Upper Level Confidence Interval

Based on the data in Table 3, teachers' psychological capital showed a fully standardized indirect effect size of $K^2 = .233$ in the relationship between administrators' EL behaviors and teachers' OCB, with a 95% BCa CI [.174, .290], which approached the threshold for a large effect size. These findings indicate a relatively large indirect effect of psychological capital in the relationship between empowering leadership and organizational citizenship behavior.

Discussion

This study examined the mediating role of psychological capital in the relationship between teachers' perceptions of empowering leadership and organizational citizenship behavior. Consistent with previous research, this study showed that the OCB levels of teachers working in secondary schools are above average (Alarçin, 2023; Altun Bogoçlu & Gündüz, 2023). These findings are encouraging for the functioning of schools. High levels of teachers' OCB may be associated with the nature of the teaching profession, which requires responsibility, self-regulation, and professional judgment. Principals' EL behaviors in secondary schools were above average, which may reflect schools being organizations suitable for authority delegation and the differentiation in administrators' and teachers' tasks (Akdeniz, 2023; Özer, 2023). Teachers' PC level, which was above average, can be explained by the

contribution of teachers' professional commitment. Studies of Çiftçi (2019) and Tilkioglu (2024) that were conducted with similar samples reported high PC.

The present study found that EL predicted PC, and H1 was confirmed. Higher perceptions of empowering leadership were associated with higher levels of psychological capital, which can be explained by the positive influence of leadership support on teachers' psychological resources. These findings are consistent with those reported by Gyu Park et al. (2017). In this case, teachers with higher perceptions of empowering leadership tend to report higher levels of self-efficacy, hope, optimism, and resilience (Dağlı & Kalkan, 2021; Shahab et al., 2018; Soylu & Okçu, 2022). The literature has reported that empowering leadership is a strong predictor of self-efficacy and psychological resilience (Akdeniz, 2023; Er, 2024). Based on this finding, the findings suggest that empowering leaders' assigning teachers difficult tasks and trusting them, enabling them to take initiative, supporting them for change and development, and ensuring their participation in decisions can be effective in increasing teachers' self-efficacy, optimism, hope, and psychological resilience (Avey et al., 2011; Porath et al., 2012). From the perspective of SET, this finding suggests that the autonomy, support, and trust provided by empowering leaders foster a sense of reciprocity among teachers and also create a context that nurtures their psychological resources (Blau, 1986; Cropanzano & Mitchell, 2005). In other words, empowering leadership functions not merely as a managerial practice but also as a mechanism that activates and strengthens teachers' PC. This role becomes particularly salient in centralized educational systems, where teachers' professional autonomy is often structurally constrained. In such contexts, empowering leadership emerges as an important mechanism that enables teachers to develop and mobilize their PC resources.

Previous studies have documented the positive effects of EL on the organization (Kim et al., 2018; Lee et al., 2018; Sharma & Kirkman, 2015). The findings indicated that higher perceptions of empowering leadership were associated with higher levels of organizational citizenship behavior, supporting H2. Empowering leaders understand their employees and empower and support them. As a result of this support and empowerment, the employee becomes psychologically strengthened in an environment of trust and increases their organizational commitment. Employees with higher OCB are more likely to engage in extra-role behaviors. Wang et al. (2022) explained this relationship with the reciprocity principle of SET. A teacher's engagement in OCB in a school environment where they receive support is an expected result in the context of SET. The increase in teachers' OCB along with their perceptions of EL may be explained by organizational environments in which leaders encourage participation in decision-making processes (Polat & Celep, 2008). In other words, for teachers to be able to exhibit OCB, there should be a participatory and information-sharing environment in the organization (Sezgin, 2005). Empowering leaders also affect teachers' OCB by increasing teachers' autonomy in schools and exhibiting a participatory environment by collaborating with others (Conger & Kanungo, 1988). A school leader's supportive manner has an effect on the formation of trust in the school (Conger & Kanungo, 1988; Podsakoff et al., 2000; Polat & Celep, 2008). Since OCB includes those performed for the school's interests, consists of voluntary behaviors, and is affected by factors such as school culture, belonging, and commitment to school, it is an expected result affected by school leaders' attitudes and behaviors (Bayrak, 2017; Şayir, 2015).

Within the framework of SET, the norm of reciprocity functions as a fundamental social mechanism. In this context, when principals engage in empowering behaviors such as sharing information, delegating authority, and encouraging participation in decision-making processes, they create opportunities for teachers to exercise greater autonomy and involvement. In return,



teachers tend to reciprocate through extra-role behaviors that benefit the school and its members (Blau, 1986; Eisenberger et al., 1986). Such social exchanges are voluntary and diffuse in nature, making OCB a particularly appropriate form of reciprocation (Cropanzano & Mitchell, 2005; Wang et al., 2022). This finding supports the applicability of SET-based explanations of OCB within school settings characterized by centralized governance structures and strong professional norms, thereby contributing to the educational administration literature.

The subdimensions of PC, with its structure that increases individuals' performance and includes internal processes (Gohel, 2012), are effective in OCB (Lape, 2024). The finding that teachers with higher psychological capital also reported higher OCB supported H3. This finding is consistent with one of the purposes of PC, which is to generate OCB outcomes (Keleş, 2011). This relationship can be more comprehensively understood from the perspective of Positive Organizational Behavior (POB). Luthans and Youssef (2004) posited that POB capacities, including the four dimensions of PC, are not fixed traits but developable states that directly influence work-related outcomes. Teachers who possess high levels of self-efficacy believe in their capacity to execute tasks successfully, which motivates them to go beyond their formally defined roles. Hope enables teachers to identify multiple pathways toward goals, sustaining motivational drive even under adversity. Optimism fosters a positive attributional style, encouraging proactive organizational engagement. Resilience allows teachers to recover from setbacks and maintain their commitment to school goals. Together, these capacities create a psychological resource profile that promotes voluntary, prosocial organizational behavior, which is precisely what OCB represents (Avey et al., 2011). In this sense, PC does not only correlate with OCB; it constitutes a motivational and cognitive substrate from which OCB naturally emerges.

The analyses in the study showed the mediating role of psychological capital in the relationship between empowering leadership and organizational citizenship behavior, confirming H4. Based on this result, teachers are likely to report higher OCB and PC in schools where administrators exhibit EL. In other words, PC serves as a mechanism through which EL contributes to teachers' OCB. This result suggests that PC is associated with leadership behaviors that positively impact the working atmosphere in school. Sri Ramalu and Janadari (2022) revealed the mediating role of PC between authentic leadership and OCB with a different sample.

The mediating role of PC in the relationship between EL and OCB can be explained through the combined application of SET and POB frameworks. From a SET perspective, empowering leadership initiates a social exchange process in which teachers receive autonomy, trust, and developmental support, resources that carry significant social and psychological value (Cropanzano & Mitchell, 2005). POB theory complements this account by highlighting individual psychological resources as the mechanism through which these exchanges translate into behavior: empowering behaviors exhibited by principals activate and strengthen teachers' psychological capital, creating the motivational and cognitive conditions necessary for the emergence of OCB. In other words, PC functions as a psychological transmission mechanism through which the positive effects of empowering leadership are translated into voluntary, extra-role organizational behaviors. This integrated theoretical explanation provides a more nuanced understanding of how leadership operates, particularly in centralized educational systems where teachers' autonomy is structurally constrained.

Theoretical Implications

This study, conducted with the assumption that the OCB of the teacher is affected by PC and the EL approach of the school administrator, made significant contributions to the literature. The results revealed the variables predicting OCB in bureaucratically structured schools and demonstrated that school administrators' EL behaviors influence teachers' organizational behaviors and their psychological states. By expanding the findings of previous studies that examined OCB in relation to EL and PC separately, this study provided a holistic perspective on how managerial behaviors simultaneously affect both the psychology and the voluntary organizational contributions of employees.

The undeniable importance of employees' psychology in enhancing organizational efficiency has made PC one of the key concepts in today's organizational research (Luthans et al., 2007). This study contributed to the development of PC literature by revealing its mediating role in the effect of school administrators' EL behaviors on teachers' OCB. In addition, by providing an in-depth examination of EL within the specific structure of schools, the study contributed to the school management literature by demonstrating how this leadership approach can support teacher autonomy in centralized educational systems.

More specifically, this study makes three theoretical contributions to the educational management literature. First, by situating PC as a mediating mechanism within the SET framework, the study advances a more process-oriented understanding of how leadership influences teacher behavior like moving beyond input-output models toward an explanation of the psychological pathways involved. Second, by applying POB theory to a school setting, the study demonstrates the relevance and explanatory utility of this framework for educational organizations, that have been relatively underrepresented in POB research. Third, by examining EL, PC, and OCB together within the specific context of centralized educational systems, the study reveals how structural constraints on teacher autonomy elevate the importance of psychologically empowering leadership. Therefore, the finding with both theoretical and practical are significant for school leadership research.

Furthermore, this finding distinguishes the present study from prior research in an important way. While existing studies have examined the EL–OCB relationship or the PC–OCB relationship are separated (Küçük, 2020; Mdookh, 2022; Sri Ramalu & Janadari, 2022), the present study is among the first to test all three constructs simultaneously within a school context, revealing PC as the psychological bridge connecting leadership style to citizenship behavior. This contributes to filling a notable gap in the educational management literature, where the psychological mechanisms linking administrator behavior to teacher outcomes have remained underexplored.

Limitations and Suggestions for Future Studies

This study had several limitations. First, it was a cross-sectional study. Future research should adopt longitudinal or mixed-method designs to examine temporal relationships more comprehensively and to strengthen causal inferences. Another limitation was that the findings were based on teachers' self-reports from a limited sample within a limited region and at the secondary school level. Similar studies should be conducted with more diverse samples and cultural contexts, and at different educational levels, to enhance the generalizability of the results. The focus on schools with centralized organizational structures provides context-specific insights but may also limit generalizability. The fact that the findings were based on teachers' self-reports may have introduced common method and self-report bias. Although the



data collection tools had high reliability, future studies should incorporate multiple data sources (e.g., supervisor ratings, peer evaluations, or observational data). Additionally, additional mediators beyond psychological capital, such as perceived organizational support, organizational happiness, and employee motivation, and potential moderating effects of demographic characteristics should be investigated in the relationship between EL and OCB.

Conclusions

Teachers reported higher levels of OCB and psychological capital when they perceived higher levels of empowering leadership from school administrators. EL behaviors of administrators and PC of teachers were significant predictors of teachers' OCB. If administrators working in schools with a centralized organizational structure support teachers' PC through EL behaviors, teachers may be more likely to engage in organizational citizenship behaviors.

Declarations

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Ethics Statements: The studies involving humans were approved by Atatürk University, Social Sciences and Humanities ethics committee.

Conflict of Interest: The author(s) declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Informed Consent: A written informed consent form was provided to the teachers, outlining the ethical principles, purpose and significance of the study.

Data availability: The data that support the findings of this study are available from the corresponding author upon reasonable request

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