

THE IMPACT OF LEADERSHIP STYLES ON ORGANIZATIONAL CITIZENSHIP BEHAVIOR: EVIDENCE FROM THE EDUCATION SECTOR IN PAKISTAN

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Abstract

This study investigates the influence of transformational, transactional, and laissez-faire leadership styles on Organizational Citizenship Behavior (OCB) among employees in Pakistan's education sector. Grounded in the Full Range Leadership Theory, the research formulates three hypotheses to examine the positive and significant effects of each leadership style on OCB. A comprehensive literature review highlights the theoretical underpinnings and empirical findings related to leadership styles and OCB. The study addresses the gap in existing literature by focusing on the Pakistani educational context, which has been underrepresented in prior research. Findings are expected to provide insights for educational institutions aiming to enhance employee engagement and organizational performance through effective leadership practices.

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INTRODUCTION

Organizational Citizenship Behavior (OCB) refers to discretionary employee behaviors that are not part of formal job requirements but contribute positively to organizational effectiveness (Organ, 1988). In the dynamic environment of the education sector, such behaviors are crucial for institutional success. Leadership styles play a pivotal role in influencing OCB, yet limited research has explored this relationship within Pakistan's educational context. This study aims to fill this gap by examining how different leadership styles affect OCB among educational professionals in Pakistan.

Literature Review and Hypothesis Development

Organizational Citizenship Behavior (OCB) refers to discretionary individual behaviors that are not explicitly recognized by formal reward systems but that collectively enhance organizational functioning (Organ, 1988; Podsakoff et al., 2000). In the context of educational institutions, where human capital is central to service delivery, fostering OCB among faculty and staff is vital for institutional success and student outcomes (Somech & Bogler, 2002). Extant literature has identified leadership as a critical antecedent of OCB (Podsakoff et al., 1990; Vigoda-Gadot, 2007), with transformational, transactional,

and laissez-faire leadership styles offering varying degrees of influence.

Transformational Leadership and OCB

Transformational leadership, characterized by idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Bass, 1985), has consistently been linked to elevated levels of OCB (Podsakoff et al., 1996; Organ et al., 2006). Leaders who embody transformational behaviors inspire employees to transcend self-interest for collective goals, thereby fostering a work environment conducive to discretionary, extra-role behaviors. Numerous empirical studies across organizational contexts, including education, affirm the positive association between transformational leadership and OCB (Lo et al., 2009; Khalid et al., 2011; Asgari et al., 2008). Based on these insights, the following hypothesis is proposed:

H1: Transformational leadership is positively associated with Organizational Citizenship Behavior.

Transactional Leadership and OCB

Transactional leadership is predicated on exchanges between leader and follower, where compliance is secured through contingent rewards and corrective actions (Bass, 1985; Burns, 1978). While not as inherently motivating as transformational leadership, transactional leadership can promote OCB by

clarifying roles, reinforcing desired behaviors, and fostering trust through reliable exchanges (Podsakoff et al., 2000). Empirical evidence on the relationship between transactional leadership and OCB is mixed but suggests a generally positive association under conditions of fairness and clarity (Wang et al., 2005; Boerner et al., 2007). In light of these considerations, the following hypothesis is formulated:

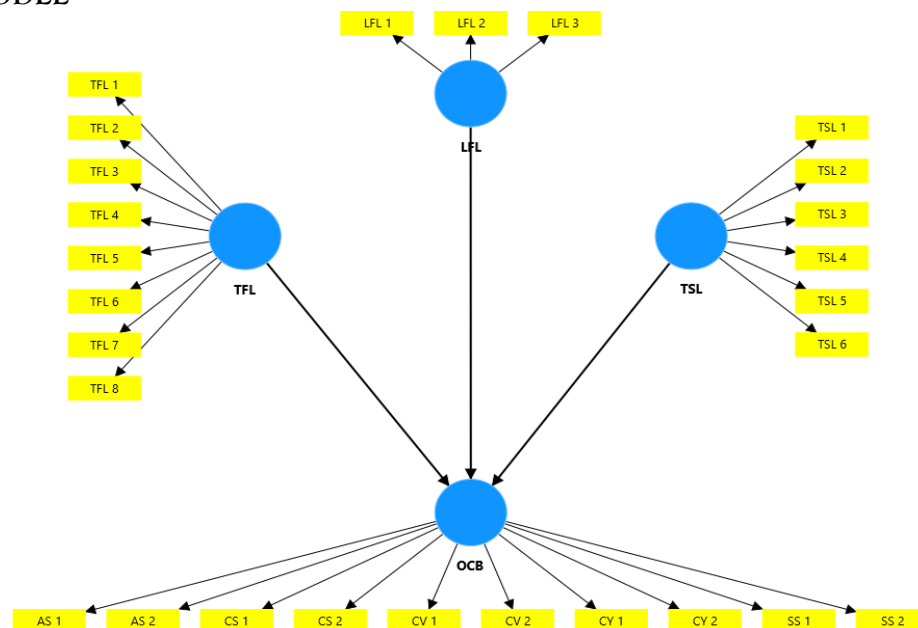
H2: Transactional leadership is positively associated with Organizational Citizenship Behavior.

Laissez-faire Leadership and OCB

Laissez-faire leadership is often described as an absence of leadership, marked by avoidance of decision-making, lack of feedback, and failure to address important issues (Bass & Avolio, 1990). This style is generally associated with negative organizational outcomes, including decreased employee engagement and diminished discretionary behavior (Skogstad et al., 2007). The literature suggests that laissez-faire leadership undermines employee motivation and weakens organizational norms that support OCB (Judge & Piccolo, 2004; Hetland et al., 2011). Accordingly, this study hypothesizes:

H3: Laissez-faire leadership is negatively associated with Organizational Citizenship Behavior.

CONCEPTUAL MODEL



Research Gap

Prior research has primarily examined the direct impact of transformational leadership on organizational citizenship behavior (OCB) and organizational commitment. Some studies have also explored the influence of both transformational and transactional leadership styles on these constructs. Notably, only a limited number of studies—such as those by Arif and Khan (2022), Nivya and Kalpana (2022), Masood et al. (2020), and Mangila and Paculaba (2020)—have investigated the effect of transformational, transactional, and laissez-faire leadership styles on OCB. Similarly, research by Nguyen et al. (2022), Jekelle (2021), Lanier (2020), and Abasilim et al. (2019) has focused on the relationship between these leadership styles and organizational commitment.

The majority of empirical studies examining the relationship between leadership styles, OCB, and organizational commitment—both direct and mediated—have been conducted in non-South Asian countries such as the Philippines, Italy, Iraq, Bahrain, Turkey, Ghana, Nigeria, Ethiopia, Uganda, Vietnam, Lebanon, Indonesia, Malaysia, and the United States. These contexts differ significantly from Pakistan in terms of socio-demographic characteristics, cultural norms, and economic conditions. As such, generalizing findings from these studies to the Pakistani context is problematic.

Further, much of the extant literature has focused on industries such as information technology, hospitality, travel and tourism, telecommunications, transportation, aviation, banking, and healthcare. While these are service industries, their operational frameworks, human resource practices, and regulatory environments differ substantially from those found in Pakistan's service sector—particularly in the education sector. This limits the applicability of their findings to educational institutions in Pakistan.

Although a few studies have explored leadership styles and their effects on OCB and organizational commitment within the Pakistani education sector—for example, among public school teachers (Arif & Khan, 2022), and university employees (Masood et al., 2020)—they remain scarce. Similar studies conducted in other educational contexts include research on school teachers in the Philippines (Mangila &

Paculaba, 2020), secondary school teachers in Iraq (Hamdi et al., 2021), vocational school staff in Indonesia (Hadijah et al., 2019), higher education institutions in Indonesia (Syakur et al., 2020), university employees in Iran (Asgari et al., 2020), political school staff in Vietnam (Nguyen et al., 2022), and public sector university teachers in Uganda and Malaysia (Mwesigwa et al., 2020; Al-Mamary, 2021).

Importantly, these studies were largely confined to single institutions or limited samples, thereby restricting the generalizability of their findings to the broader educational sector. Given these limitations, there remains a clear research gap in examining the influence of transformational, transactional, and laissez-faire leadership styles on OCB and organizational commitment in a broader and more representative sample of educational institutions in Pakistan.

This study seeks to address this gap by providing empirical evidence on the relationship between leadership styles and OCB, both directly and through the mediating role of organizational commitment, within the context of Pakistan's education sector.

Research Methodology

The target population for this study comprised teachers employed at schools, colleges, and universities affiliated with and recognized by the Board of Secondary Education Karachi (BSEK), Board of Intermediate Education Karachi (BIEK), and the Higher Education Commission (HEC) of Pakistan. A **disproportionate stratified random sampling technique** was employed to ensure representation across these educational tiers. From the stratified sample frame, 1,200 self-administered questionnaires were distributed. After data cleaning and validation, **1,000 completed and valid responses** were retained for final analysis, yielding a usable response rate of approximately 83.3%.

A structured questionnaire using a five-point Likert scale (ranging from 1 = strongly disagree to 5 = strongly agree) was used to measure leadership styles perceived by the respondents. The questionnaire items were adapted from validated leadership style scales based on transformational, transactional, and laissez-faire leadership frameworks (Bass & Avolio, 1994).

Data Analysis and Findings

Table 1: Perception of Leadership Styles

LS	Statement	Mean	Standard Deviation
1	My superior talks about desirable achievements enthusiastically with me.	3.109	1.008
2	My superior expresses confidence that I will achieve the goals.	3.096	0.998
3	My superior discusses the most important values and beliefs with me.	3.055	0.979
4	My superior duly considers the ethical and moral outcomes of his/her decisions.	3.176	1.025
5	My superior understands that my needs, abilities, and aspirations differ from other employees.	2.973	1.256
6	My superior facilitates me in developing my strengths.	3.502	1.130
7	My superior encourages me to analyze problems from different angles.	3.528	1.134
8	My superior suggests new ways for completing assignments.	3.568	1.128
9	My superior clearly expresses what I should expect upon achieving performance goals.	3.578	1.078
10	My superior expresses satisfaction when I meet expectations.	3.577	1.104
11	My superior focuses on irregularities, mistakes, exceptions, and deviations from standards.	3.217	1.216
12	My superior draws attention to failures in meeting standards.	3.106	1.246
13	My superior intervenes only when problems become serious.	3.033	1.295
14	My superior believes no improvement is needed if existing practices are sufficient.	3.007	1.264
15	My superior avoids involvement in significant issues.	2.982	1.270
16	My superior is absent in times of need.	2.987	1.297
17	My superior avoids decision-making.	3.396	1.113

Interpretation of Results

Transformational Leadership (TFL)
Items LS1–LS4 yielded mean scores ranging from 3.055 to 3.176, indicating a neutral perception from respondents regarding their supervisors' enthusiasm for achievements, articulation of values and beliefs, confidence in subordinates, and ethical considerations. However, LS5 had a lower mean score of 2.973, suggesting disagreement that superiors recognize individual employee needs and aspirations. On the other hand, items LS6–LS8, with mean scores ranging from 3.502 to 3.568, show positive perceptions of transformational leadership behaviors, such as helping employees develop strengths, promoting analytical thinking, and suggesting innovative methods for task completion.

Transactional Leadership (TSL)
Items LS9 and LS10 scored between 3.568 and 3.578, indicating agreement that superiors clearly communicate performance expectations and express satisfaction upon meeting those expectations.

However, items LS11–LS14 (mean scores: 3.007–3.217) reflect a neutral stance on whether supervisors focus on employee errors, intervene when necessary, or resist change when existing methods suffice.

Laissez-Faire Leadership (LFL)
LS15 and LS16 received mean scores of 2.982 and 2.987, respectively, indicating general disagreement with the notion that superiors avoid involvement or are absent when needed. Interestingly, LS17 yielded a mean score of 3.396, suggesting moderate agreement that some leaders exhibit indecision or avoid making critical choices.

Standard Deviation Analysis
Standard deviations for most items exceeded 1.0, indicating moderate variability in responses. Exceptions were found in LS2 and LS3, where standard deviations were closer to 1.0, suggesting more consistent perceptions across participants. Overall, the data indicate relatively stable patterns in perceived

leadership behaviors, with some variation in response strength across different leadership styles.

Perception of Organizational-citizenship Behavior

Table 1-2 shows Participants' perception regarding Organizational-citizenship behavior(OCB). Statements

measuring Altruism (AM) are OCB 1-2, Conscientiousness (CS) are OCB 3-4, Sportsmanship (SP) are OCB 5-6, Courtesy(CY) are OCB 7-8 and Civic Virtue (CV) are OCB 9-10

Table 1-2: Perception of Organizational-citizenship behavior

OCB	STATEMENTS	MEAN	STANDARD DEVIATION
1	I am always ready to help my colleagues.	3.027	1.132
2	I help new colleagues to adjust even though it is not required.	3.332	1.168
3	I obey the rules and regulations of the organization even though no one is watching.	2.826	1.151
4	My attendance is above norm.	2.87	1.138
5	I tend to exaggerate small problems at work.	2.984	1.174
6	I always find fault with what the organization is doing.	2.801	1.223
7	I do not abuse rights of other employees at work.	2.811	1.185
8	I am mindful that how my behavior affects job of my colleagues.	2.777	1.194
9	I keep myself abreast of changes take place in my organization.	3.06	1.234
10	I attend functions which are not required but help in enhancing the image of my organization.	2.945	1.2

The mean score of Altruism (AS) items OCB1-OCB 2 is 3.027-3.332 indicating indifference of participants over assertions that they are always ready to help their colleagues, help new colleagues to adjust even though not requires and keep themselves abreast of changes taking place in organization. Conscientiousness (CS) items OCB 3-OCB 4 mean score is 2.826-2.87 indicate their disagreement that they follow rules even no one is watching and attendance is above norm. Mean score of Sportsmanship (SS) item OCB 5-OCB6 is 2.801-2.984 indicate their disagreement that they exaggerate small problems and find faults with organization. Courtesy(CY) items OCB 8-OCB 9 show mean score of 2.777-2.811 means participants' disagreement over assertions that they do not abuse rights of colleagues and are mindful of their behavior towards their colleague. The mean score of Civic Virtue(CV) item OCB 9 is 3.06 means participants' indifference for keeping them abreast of changes in their organization whereas for Civic Virtue(CV) item OCB 10 mean score is 2.945 show their disagreement that they attend

functions which are not required but help in enhancing image of their organization.

Additionally, the standard deviation is slightly greater than 1 for all items on citizenship scale. It means participants perception of citizenship behavior is stable and responses do not show much variation.

Partial Least Square Structural Equation Modeling (PLS-SEM)

Measurement Model

Factor Loading

It is a statistical measure used to examine the strength and significance of the association among latent variables and its observed variables. It measures the contribution of latent variables in the measurement of variance they cause in their indicators. Loading more than 0.708 signify strong, relationship among observed and latent variables as it shows that latent variable describes more than 50 percent variance in the indicators (Hair Jr, Hult, Ringle, & Sarstedt, 2021).Factor loadings of this study are presented in

Table 1-3. In this study almost all item loadings are above threshold value except TFL 5 with loading of 0.654 and AS 2 with factor loading of .683 which is slightly below than critical value but it is retained as according to Hair Jr, Hult, Ringle, Sarstedt, et al. (2021) factors having loadings between 0.40 and 0.708

only be deleted if they do not affect the other reliability and validity measures. Therefore, the relationship among all indicators and their latent variables of this study is strong and latent variables elucidate more than 50 percent of the variance in their respective indicators.

Table 1-3 -Factor loading

	TFL	TSL	LFL	OCB
TFL 1	0.866			
TFL 2	0.877			
TFL 3	0.863			
TFL 4	0.878			
TFL 5	0.654			
TFL 6	0.794			
TFL 7	0.804			
TFL 8	0.821			
TSL 1		0.757		
TSL 2		0.792		
TSL 3		0.801		
TSL 4		0.810		
TSL 5		0.832		
TSL 6		0.780		
LFL 1			0.885	
LFL 2			0.907	
LFL 3			0.796	
AS 1				0.826
AS 2				0.683
CS 1				0.877
CS 2				0.860
SS 1				0.891
SS 2				0.892
CY 1				0.850
CY 2				0.881
CV 1				0.804
CV 2				0.743

Convergent Validity

Convergent validity refers to the extent to which a latent construct correlates with its observed indicators, thereby demonstrating that the items are measuring the same underlying concept (Ajayi & Adebayo, 2021). In Partial Least Squares Structural Equation Modeling (PLS-SEM), convergent validity is assessed using the **average variance extracted (AVE)**, which reflects the average amount of variance in the indicators that is

accounted for by their respective latent constructs (Hair et al., 2021).

A construct is considered to demonstrate adequate convergent validity when the AVE value is equal to or greater than 0.50. As shown in Table 1-5, all constructs in this study have AVE values exceeding the threshold, indicating that each latent variable explains a substantial portion of the variance in its indicators. Therefore, the measurement instrument used in this study is confirmed to have strong convergent validity.

Table 1–5 Average Variance Extracted (AVE)

Construct	AVE
TFL	0.677
TSL	0.633
LFL	0.747
OCB	0.694

Note: TFL = Transformational Leadership; TSL = Transactional Leadership; LFL = Laissez-Faire Leadership; OCB = Organizational Citizenship Behavior.

These AVE values confirm that the latent constructs in this study significantly explain the average variance in their associated indicators.

Discriminant Validity

Discriminant validity refers to the degree to which a latent construct is distinct from other constructs within the model (Ajayi & Adebayo, 2021). It ensures that each construct captures phenomena not represented by other constructs in the model. Discriminant validity in this study was assessed using three established methods: the **Fornell–Larcker criterion**, the **heterotrait–monotrait ratio of correlations (HTMT)**, and **cross-loadings** (Hayat et al., 2023).

Discriminant Validity

Discriminant validity assesses the extent to which latent constructs are distinct and measure different concepts within a model (Ajayi & Adebayo, 2021). It is an essential component of construct validity, ensuring that the indicators of a given latent variable are not excessively correlated with those of other latent variables.

Fornell–Larcker Criterion

According to Fornell and Larcker (1981), discriminant validity is established when the square root of the average variance extracted (AVE) for each construct exceeds the correlation coefficients between that construct and all other constructs. As presented in Table 1–6, the diagonal values (square roots of AVE) are greater than the off-diagonal inter-construct correlations in all cases, thereby satisfying the Fornell–Larcker criterion. This indicates that each construct in the model shares more variance with its own indicators than with other constructs, confirming discriminant validity.

Table 1–6 Fornell–Larcker Criterion

Construct	TFL	TSL	LFL	OCB
TFL	0.823			
TSL	0.820	0.796		
LFL	0.669	0.816	0.864	
OCB	0.571	0.511	0.449	0.833

Note: Diagonal values (bolded) are the square roots of AVE. Off-diagonal values are inter-construct correlations. TFL = Transformational Leadership;

TSL = Transactional Leadership; LFL = Laissez-Faire Leadership; OCB = Organizational Citizenship Behavior.

Heterotrait–Monotrait Ratio (HTMT)

The HTMT ratio is another robust method for assessing discriminant validity. It measures the mean

of correlations across constructs (heterotrait–heteromethod) relative to the mean of correlations within the same construct (monotrait–

heteromethod). As per Henseler et al. (2015, as cited in Shrestha, 2021), an HTMT value below 0.90 is acceptable when constructs are conceptually related, while a more conservative threshold of 0.85 is recommended when constructs are conceptually distinct.

As shown in Table 1-7, all HTMT values fall below the 0.90 threshold, and most are below the stricter 0.85 criterion. This provides further evidence that the constructs in this study are sufficiently distinct from each other.

Table 1-7 Heterotrait–Monotrait Ratio (HTMT)

Construct Pair	HTMT Value
TFL – TSL	0.881
TFL – LFL	0.740
TFL – OCB	0.611
TSL – LFL	0.873
TSL – OCB	0.556
LFL – OCB	0.489

All HTMT values are within acceptable ranges, indicating that discriminant validity is well established across the constructs.

Cross Loadings

Cross loadings indicate how strongly each item (indicator) loads on its intended latent construct compared to other constructs. An item should load

highest on its assigned construct to ensure discriminant validity (Rönkkö & Cho, 2022). Following the criterion proposed by Al-Emran et al. (2019), all indicators in this study load more strongly on their respective constructs than on any other latent variable, as presented in Table 1-8. This confirms the model's discriminant validity.

Table 1-8 Cross Loadings of Items on Latent Constructs

Indicator	TFL	TSL	LFL	OCB
TFL 1	0.866	0.670	0.560	0.483
TFL 2	0.877	0.680	0.566	0.481
TFL 3	0.863	0.644	0.533	0.444
TFL 4	0.878	0.715	0.620	0.465
TFL 5	0.654	0.679	0.736	0.403
TFL 6	0.794	0.625	0.429	0.484
TFL 7	0.804	0.689	0.511	0.484
TFL 8	0.821	0.714	0.493	0.519
TSL 1	0.757	0.757	0.499	0.484
TSL 2	0.763	0.792	0.530	0.479
TSL 3	0.646	0.801	0.653	0.386
TSL 4	0.649	0.810	0.634	0.403
TSL 5	0.594	0.832	0.779	0.370
TSL 6	0.515	0.780	0.793	0.325

Indicator	TFL	TSL	LFL	OCB
LFL 1	0.496	0.729	0.885	0.326
LFL 2	0.579	0.708	0.907	0.351
LFL 3	0.674	0.681	0.796	0.501
AS 1	0.454	0.408	0.400	0.826
AS 2	0.583	0.459	0.300	0.683
CS 1	0.459	0.403	0.324	0.877
CS 2	0.422	0.387	0.346	0.860
SS 1	0.483	0.416	0.362	0.891
SS 2	0.492	0.443	0.390	0.892
CY 1	0.479	0.463	0.473	0.850
CY 2	0.495	0.468	0.435	0.881
CV 1	0.443	0.415	0.369	0.804
CV 2	0.488	0.412	0.334	0.743

Note: Bold values indicate the highest loading for each item on its respective construct.

Structural Model

Following the validation of the measurement model, the structural model was assessed to evaluate the hypothesized relationships among the latent constructs. This stage aims to test the theoretical framework of the study by analyzing the magnitude, significance, and direction of relationships using path coefficients derived from PLS-SEM (Donkor, 2021; Hair & Alamer, 2022).

The structural model assesses the predictive power of exogenous variables (i.e., leadership styles: transformational, transactional, and laissez-faire) on the endogenous construct (Organizational Citizenship Behavior). It also determines the extent to which the model supports the proposed hypotheses based on empirical data.

The next section will present the results of hypothesis testing, including path coefficients, t-values, and p-values, to evaluate the direct effects among constructs.

Indicator Collinearity

Collinearity refers to the degree of intercorrelation among indicators of an independent latent construct, which can bias the results in a structural model (Hair Jr., Hult, Ringle, & Sarstedt, 2021). To assess collinearity, the Variance Inflation Factor (VIF) is commonly employed. A VIF value below 5 indicates that collinearity is not critical, whereas a value below 3 suggests that no multicollinearity is present at all (Hair et al., 2021; Hair & Alamer, 2022).

In this study, VIF values for all indicators were found to be well below the recommended threshold of 5, as shown in Table 1-9. This confirms that multicollinearity does not pose a concern and that the exogenous constructs are statistically suitable to predict the endogenous construct. Thus, the structural model of this study can be considered robust in terms of indicator collinearity.

Table 1-9 Variance Inflation Factor (VIF) Values

Indicator	VIF	Indicator	VIF
TFL 1	3.831	TSL 1	3.003
TFL 2	4.473	TSL 2	3.317
TFL 3	3.692	TSL 3	2.142
TFL 4	3.878	TSL 4	2.212
TFL 5	1.603	TSL 5	3.880

Indicator	VIF	Indicator	VIF
TFL 6	2.932	TSL 6	2.807
TFL 7	3.193	LFL 1	2.363
TFL 8	3.478	LFL 2	2.581
AS 1	2.831	LFL 3	1.546
AS 2	1.949	CS 1	4.234
SS 1	4.479	CS 2	4.437
SS 2	4.728	CY 1	3.579
CV 1	3.080	CY 2	4.477
CV 2	2.841		

All VIF values are below the critical threshold of 5, confirming that multicollinearity does not pose a concern in this model.

Significance and Relevance of Relationships in the Structural Model

Significance and Relevance of Relationships in the Structural Model

Path coefficients (β) were computed using the bootstrapping technique to test the hypothesized relationships among latent variables. A path coefficient value of 1 indicates a strong positive relationship, while a value of 0 signifies no relationship (Hair Jr., Hult, Ringle, Sarstedt, et al., 2021). The statistical significance of each path was assessed using t-statistics and p-values. A relationship is considered statistically

significant if the t-statistic exceeds 1.96 and the p-value is below 0.05 (Wong, 2019).

As shown in Table 1-10, the path coefficient for **TFL** \rightarrow **OCB** ($\beta = 0.465$) indicates a strong positive and statistically significant relationship. Similarly, **LFL** \rightarrow **OCB** ($\beta = 0.095$) also shows a statistically significant, though weaker, positive relationship. However, the path coefficient for **TSL** \rightarrow **OCB** ($\beta = 0.052$) is low, with a t-statistic of 0.814 and a p-value of 0.416, indicating that this relationship is not statistically significant.

Table 1-10 Path Coefficients, T-Statistics, and P-Values

Path	β (Coefficient)	Sample Mean (M)	Standard Deviation (STDEV)	T-Statistic	P-Value
TFL \rightarrow OCB	0.465	0.466	0.049	9.513	0.000
TSL \rightarrow OCB	0.052	0.052	0.064	0.814	0.416
LFL \rightarrow OCB	0.095	0.094	0.047	2.022	0.043

Explanatory Power

The explanatory power of the model was evaluated using the coefficient of determination (R^2), which represents the proportion of variance in the endogenous construct explained by the exogenous constructs (Zeng, Liu, Gong, Hertogh, & König, 2021). According to the widely accepted thresholds proposed by Hair, Ringle, and Sarstedt (2011, as cited in Sarstedt, Ringle, & Hair, 2021), R^2 values of 0.75, 0.50, and 0.25 are indicative of substantial, moderate, and weak explanatory power, respectively.

As shown in Table 1-11, the R^2 value for OCB is **0.335**, suggesting **moderate explanatory power** of the model. This implies that the exogenous constructs—transformational leadership (TFL), transactional leadership (TSL), and laissez-faire leadership (LFL)—collectively explain 33.5% of the variance in the endogenous construct, Organizational Citizenship Behavior (OCB).

Table 1-11 Coefficient of Determination (R^2) for Endogenous Construct

Construct	R^2	Adjusted R^2
OCB	0.335	0.333

In addition, **effect size** (f^2) was calculated to evaluate the individual impact of each exogenous variable on the endogenous construct. Following the guidelines of Hair et al. (2011, as cited in Zeng et al., 2021), f^2 values of 0.02, 0.15, and 0.35 represent small, medium, and large effects, respectively, while values below 0.02 suggest no effect.

As shown in Table 1-12, **TFL** has a small but meaningful effect on OCB ($f^2 = 0.106$). In contrast, **TSL** and **LFL** have negligible effects on OCB, with f^2 values of **0.001** and **0.005**, respectively. This further confirms that TFL is the primary predictor of OCB in this study.

Table 1-12 Effect Size (f^2) of Exogenous Constructs on OCB

Predictor	f^2 (Effect Size)
TFL	0.106
TSL	0.001
LFL	0.005

Predictive Relevance (Q^2)

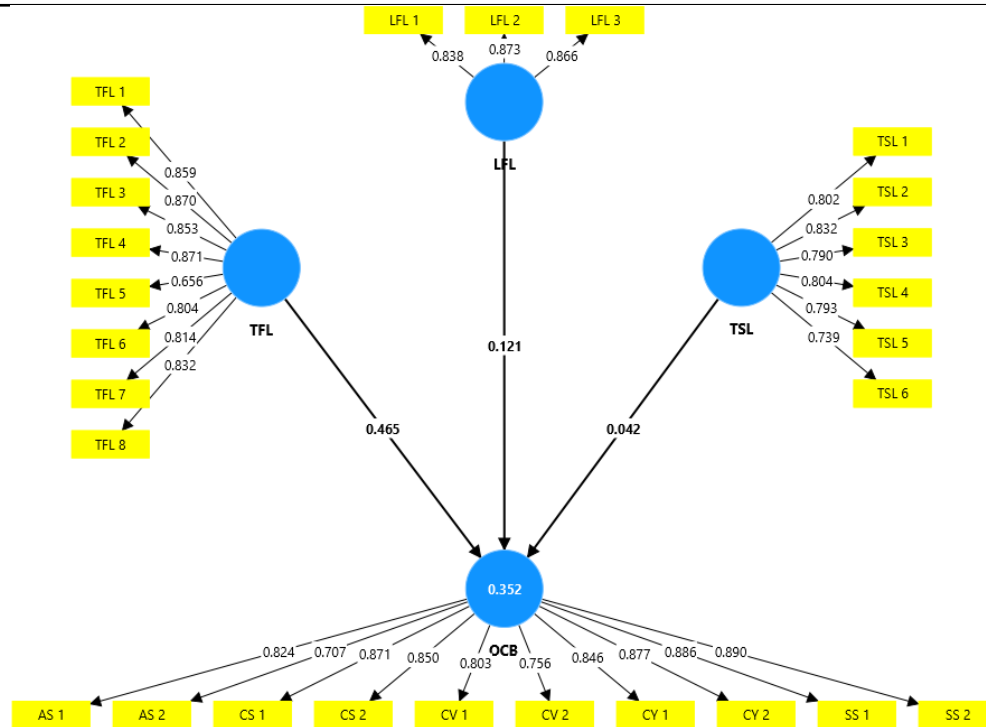
The **predictive relevance** (Q^2) of the model was assessed using the blindfolding procedure. A Q^2 value greater than zero for an endogenous construct indicates that the model has predictive relevance for that construct. According to Hair et al. (2019), Q^2

values of 0.02, 0.25, and 0.50 suggest small, medium, and large predictive accuracy, respectively.

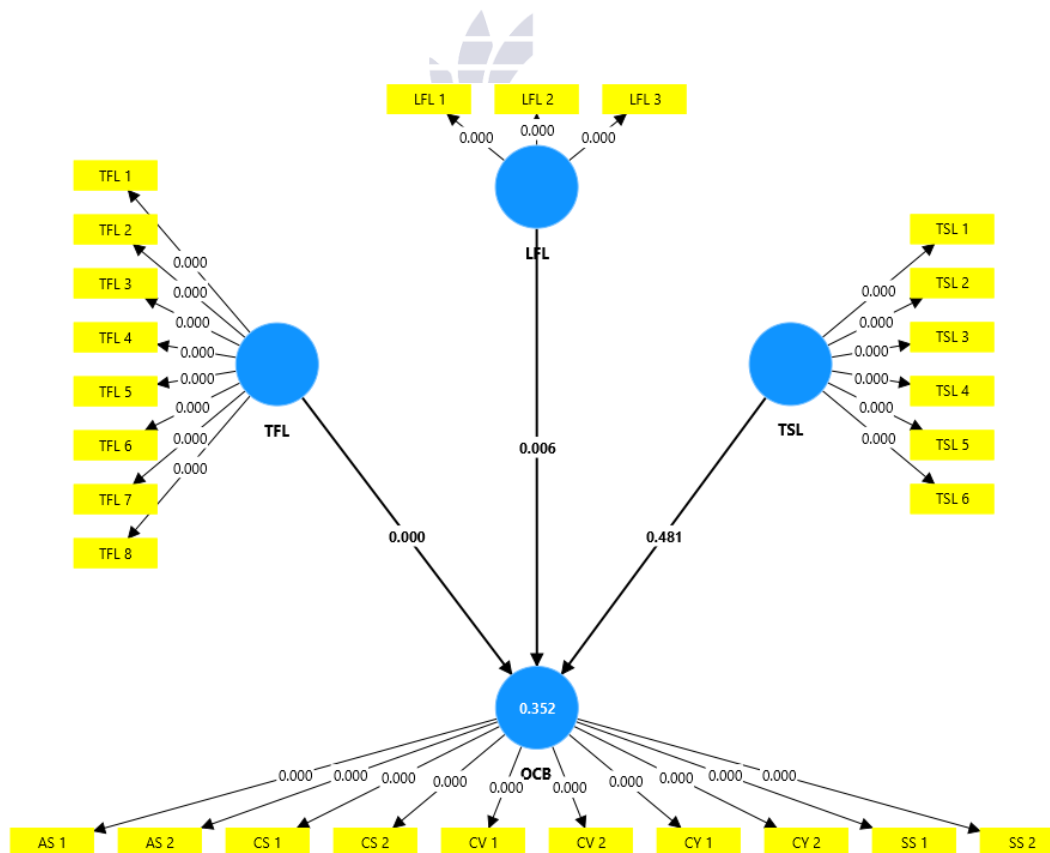
As shown in Table 1-13, the Q^2 value for OCB is **0.347**, indicating **moderate to large predictive relevance**. This confirms that the model is capable of accurately predicting the endogenous variable (OCB).

Table 1-13 Predictive Relevance (Q^2) for Endogenous Construct

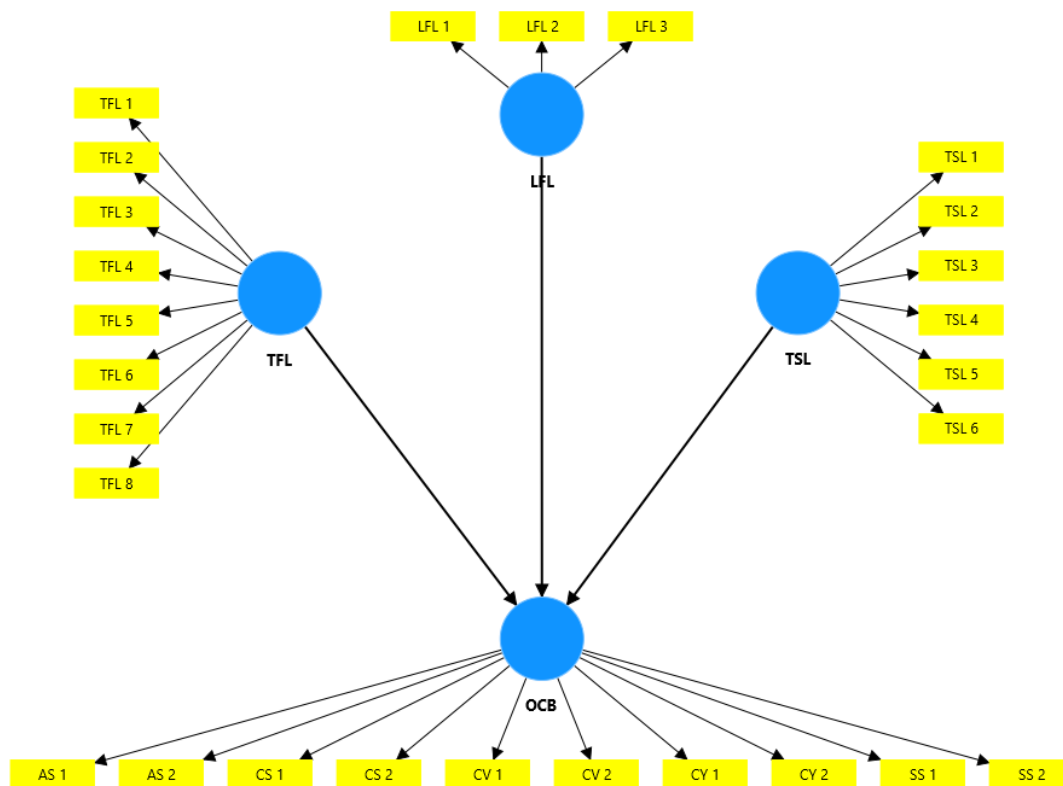
Construct	Q^2 predict
OCB	0.347



PLS-SEM



PLS-BT



PLS-PREDICT

Correlation Analysis

Table 1-15 presents the Pearson correlation results between leadership style (LS) dimensions and Organizational Citizenship Behavior (OCB). The findings indicate a **moderate positive and significant relationship** between **transformational leadership (TFL)** and OCB ($r = 0.585$, $p = 0.000$). Similarly, **transactional leadership (TSL)** also shows a **moderate positive and significant correlation** with OCB ($r =$

0.598 , $p = 0.000$). Meanwhile, **laissez-faire leadership (LFL)** is found to have a **low positive but significant correlation** with OCB ($r = 0.604$, $p = 0.000$).

These findings suggest that transformational and transactional leadership styles significantly contribute to the exhibition of OCB among teachers, with both styles moderately enhancing their discretionary behaviors. Although LFL also shows a significant association with OCB, the strength of the relationship is relatively weaker.

Table 1-15 Correlation between Leadership Styles and Organizational Citizenship Behavior

Leadership Style Pearson Correlation (r) Significance (2-tailed) N			
TFL	0.585**	0.000	1000
TSL	0.598**	0.000	1000
LFL	0.604**	0.000	1000

Note: $p < 0.01$ (2-tailed), significant at the 0.01 level.

Hypothesis Testing

H1: Transformational leadership style has a positive and significant effect on Organizational Citizenship Behavior.

As shown in Table 1-16, the path coefficient for $LS \rightarrow OCB$ is $\beta = 0.328$, with a t -statistic = 9.764 and $p = 0.000$, indicating a **positive and significant relationship**. Therefore, **H1 is supported**.

Table 1-16 Hypothesis Testing for LS → OCB

Path	β	t-Statistic	p-Value	Decision
LS → OCB	0.328	9.764	0.000	Supported

Discussion

The results of this study affirm that leadership style is positively and significantly associated with the Organizational Citizenship Behavior (OCB) of teachers. This aligns with the findings of Nivya and Kalpana (2022) and Paculaba and Mangila (2020), who also observed that effective leadership enhances discretionary behaviors among employees.

Furthermore, the current study found that all three dimensions of leadership—transformational, transactional, and laissez-faire—are positively and significantly correlated with OCB. Similar observations were reported by Arif and Khan (2022) in the context of Pakistani public schools, and by Muthunayaka and Nishanthi (2019) in Sri Lanka's apparel industry.

Transformational and transactional leadership styles emerged as **more effective** in enhancing teachers' OCB compared to laissez-faire leadership. These results echo the conclusions drawn by Hamdi et al. (2021), who noted that extra-role behavior is significantly related to transformational and transactional leadership styles in Iraqi secondary schools. Likewise, Mekpor and Dartey-Baah (2020) highlighted the effectiveness of these leadership styles in promoting OCB within Ghana's banking sector.

Notably, **transformational leadership** appeared to be the **most influential style** in predicting OCB among teachers. This is consistent with previous studies (Ertuğrul & Yenidoğan, 2020; Frangieh & Popescu, 2020; Purwanto et al., 2021), which found that transformational leaders inspire confidence, promote autonomy, and foster a deep sense of purpose among their teams. Supriyanto et al. (2020) also emphasized the role of transformational leadership in stimulating creativity, collaboration, and voluntary organizational support.

Conclusion

Based on the study's findings, it is evident that **leadership styles have a significant and positive influence on teachers' Organizational Citizenship**

Behavior. All three styles—transformational, transactional, and laissez-faire—demonstrated positive

correlations with OCB. This underscores the importance of leadership in shaping behaviors that extend beyond formal job roles for the benefit of educational institutions.

Among the three, **transformational leadership** had the most substantial impact, highlighting the value of vision-driven, motivational, and supportive leadership in fostering commitment and proactive behaviors. **Transactional leadership** was also effective, particularly through its emphasis on clarity, performance standards, and reward mechanisms. Interestingly, **laissez-faire leadership**, though generally viewed as passive, exhibited a significant relationship with OCB—potentially reflecting how autonomy and trust can empower teachers to engage voluntarily in supportive organizational actions.

In conclusion, leadership style plays a **critical role in encouraging OCB**, regardless of whether it is active, structured, or passive. Educational leaders must be **strategic** in adopting the appropriate style based on context and desired outcomes.

Recommendations

- Invest in Leadership Development:** Organizations should design and implement comprehensive training programs that develop both transformational and transactional leadership skills. Such programs should focus on vision-setting, communication, emotional intelligence, and performance management.
- Evaluate Leadership Effectiveness Regularly:** Incorporate OCB-related metrics into performance appraisal systems to assess how leadership styles contribute to promoting discretionary employee behavior.
- Contextualize Leadership Approaches:** Leaders should be trained to adapt their style—transformational, transactional, or laissez-faire—based

on institutional goals, teacher needs, and contextual dynamics to maximize engagement.

6. **Align Institutional Values with Leadership Behaviors:**

Core institutional values should be re-examined and aligned with desired leadership behaviors to embed a culture that supports OCB and academic excellence.

7. **Ensure Leadership Accountability:**

Establish mechanisms for holding leaders accountable for modeling desired leadership styles, thereby reinforcing trust, transparency, and consistency within the organization.

8. **Recognize and Reward Effective Leadership:**

Formal recognition should be given to leaders who exhibit effective leadership behaviors that foster employee commitment and OCB. This encourages others to emulate such practices.

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