

Dynamics of Transformational Leadership and Its Effects on Organizational Culture and Organizational Effectiveness of Academic Institution: A Structural Equation Modeling Approach

Flores Jezreel Y.

Abstract—This study employs Structural Equation Modeling (SEM) to explore the dynamics of transformational leadership and its effect on organizational culture and organizational effectiveness of an academic institution. This study utilizes a survey of 195 academic leaders and faculty members of University X in Cebu City, Philippines to analyze the relationships among leadership, culture, and effectiveness using Structural Equation Model (SEM) Jeffrey's Amazing Statistics Program (JASP) software. Sample selection was carried out by convenience sampling and the hypothesis in this study was tested using the Unweighted Least Squares (ULS) method. Results indicate that transformational leadership, organizational culture, and effectiveness are accurately measurable, with strong model stability and reliability. The results showed that the four components of transformational leadership (inspirational motivation, individual consideration, idealized influence, and intellectual stimulation) partake an excellent fit and substantial interactive upshot on organizational culture. The findings reveal also that transformational leadership influences organizational effectiveness indirectly through its positive impact on organizational culture, highlighting the critical role of a robust culture in maximizing leadership benefits and improving overall performance.

Index Terms—organizational effectiveness, organizational culture, structural equation model, transformational leadership

I. INTRODUCTION

Transformational leadership, as highlighted by Buil et al (2019), embodies a dynamic approach in which leaders engage and motivate their subordinates to embrace company goals and perform above expectations. This type of leadership is critical in higher education since it has a big impact on the effectiveness and organizational culture. A combination of leadership philosophies among academic leaders and instructors at University X highlights the significance of transformative leadership in accordance with the mission of the university. Effective leadership creates a collaborative, driven atmosphere that propels societal progress and creative thinking, as shown by Cherry (2023). Transformational leadership, characterized by inspiration, motivation, consideration, and intellectual stimulation, is pivotal in enhancing job satisfaction, performance, and organizational efficacy. Despite the strong alignment with transformational

leadership and a supportive culture at University X, the institution faces challenges in achieving maximum organizational effectiveness. Investigating the interplay between transformational leadership and organizational culture can reveal crucial insights, aiding in strategy development to boost overall performance and faculty satisfaction. This research aims to bridge the gap between leadership intent and outcomes, offering valuable knowledge to enhance academic excellence and address faculty attrition, ultimately fostering a thriving academic environment.

II. FRAMEWORK OF THE STUDY

The transformational leadership theory, first put forth by James MacGregor Burns in 1978 and exploited by Bernard M. Bass in 1985, serves as the foundation for this study. This idea emphasizes on leaders who put the success of the company ahead of their own interests and encourage and motivate their team members to accomplish remarkable outcomes. The Multifactor Leadership Questionnaire (MLQ) is used to evaluate leadership components in Bass's paradigm, which include "individualized consideration," "intellectual stimulation," "idealized influenced," and "inspirational motivation." Research, including the Augmentation Model of Transactional and Transformational Leadership, suggests that transformational leadership behaviors positively impact job satisfaction and organizational commitment among academic leaders more than transactional behaviors. The application of these theories at University X requires an examination of how such leadership affects organizational culture and effectiveness amidst evolving societal and technological challenges.

Transformational leadership is characterized by fostering dynamic relationships, dedication, and achieving organizational goals, as emphasized by Buil et al (2019). This leadership style is preferred over transactional leadership in various contexts, enhancing employee engagement and performance (Busari et al., 2019). Transformational leaders significantly influence followers by promoting shared values and goals, leading to profound changes in beliefs and aspirations (Islam et al., 2021). Research also indicates that transformational leadership facilitates positive organizational changes and improves performance, as leaders inspire followers through vision, creativity, and personal attention (Sakat & Ye, 2021; Alessa, 2021).

The connection between transformational leadership and

Flores Jezreel, Faculty of Business Administration Program, School of Business, Southwestern University PHINMA, Cebu City, Philippines.

Dynamics of Transformational Leadership and Its Effects on Organizational Culture and Organizational Effectiveness of Academic Institution: A Structural Equation Modeling Approach

organizational culture is pivotal, as this leadership style can enhance various aspects of culture, such as involvement, consistency, adaptability, and mission (Suphattanakul, 2017). Transformational leadership influences organizational effectiveness by shaping a supportive culture that drives employee performance and engagement (Nurtjahjani et al., 2020). The theory suggests that a strong organizational culture, defined by shared values and norms, can significantly impact overall performance, employee behavior, and organizational adaptability (Howard et al., 2023). This interplay between leadership and culture is crucial for achieving organizational goals and fostering a productive environment.

III. METHODOLOGY

This study extensively investigated the interactions among organizational effectiveness, culture, and transformational leadership in an academic setting using structural equation modeling (SEM). The selection of University X was based on the breadth of its scholarship on leadership theories, especially transformational leadership. The sample size was determined using the Cochran Formula, which ensures a 95% confidence level and a 5% margin of error. A survey questionnaire was distributed to a convenience sample of approximately 195 people, which included full-time faculty members and academic leaders. Using SEM JASP software, the data was evaluated and the associations among transformational leadership, organizational culture, and effectiveness were sought out. The results underwent a rigorous analysis process that yielded insightful information about the research issue and made a substantial contribution to the academic domains of organizational culture and transformational leadership. SEM was employed to elucidate the complex relationships between leadership, culture, and effectiveness.

IV. RESULTS AND DISCUSSION

Table 1. Descriptive Statistics Results for Transformational Leadership, Organizational Culture and Organizational Effectiveness

	TLIM1	TLIM2	TLIM3	TLIM4	TLIM5	TLIM6	TLIM7	TLIM8	TLIM9	TLIM10	TLIM	Category
Mean	3.528	3.395	3.421	3.313	3.185	3.364	3.241	3.436	3.323	3.352		Always
Std	0.660	0.782	0.694	0.794	0.793	0.889	0.777	0.696	0.696	0.851	0.099	Often
TLIC1	TLIC2	TLIC3	TLIC4	TLIC5	TLIC6	TLIC7	TLIC8	TLIC9	TLIC10	TLIC		Category
Mean	3.128	3.149	3.231	3.236	3.062	3.226	3.313	3.354	3.328	3.436	3.246	Often
Std	0.873	0.852	0.795	0.900	0.847	0.844	0.812	0.827	0.834	0.799	0.114	Always
TLU1	TLU2	TLU3	TLU4	TLU5	TLU6	TLU7	TLU8	TLU9	TLU10	TLU		Category
Mean	3.349	3.328	3.200	3.405	3.267	3.359	3.313	3.390	3.272	3.251	3.313	Always
Std	0.856	0.770	0.853	0.777	0.813	0.776	0.831	0.768	0.857	0.864	0.065	Often
TLIS1	TLIS2	TLIS3	TLIS4	TLIS5	TLIS6	TLIS7	TLIS8	TLIS9	TLIS10	TLIS		Category
Mean	3.287	3.200	3.169	3.308	3.287	3.297	3.323	3.205	3.144	3.246	3.247	Often
Std	0.812	0.841	0.872	0.842	0.837	0.827	0.827	0.879	0.891	0.838	0.063	Always
OCVM1	OCVM2	OCVM3	OCVM4	OCVM5	OCVM6	OCVM7	OCVM8	OCVM9	OCVM10	OCVM		Category
Mean	3.472	3.385	3.431	3.441	3.487	3.313	3.405	3.277	3.210	3.364	3.379	Always
Std	0.683	0.726	0.739	0.704	0.837	0.799	0.75	0.750	0.826	0.743	0.089	Often
OC11	OC12	OC13	OC14	OC15	OC16	OC17	OC18	OC19	OC110	OC1		Category
Mean	3.010	3.067	2.985	3.205	3.174	3.108	3.113	3.200	3.174	3.214	3.127	Often
Std	0.837	0.846	0.899	0.843	0.880	0.840	0.890	0.853	0.891	0.831	0.085	Always
OC21	OC22	OC23	OC24	OC25	OC26	OC27	OC28	OC29	OC210	OC2		Category
Mean	3.159	3.113	3.149	3.256	3.164	3.154	3.164	3.195	3.174	3.241	3.177	Often
Std	0.827	0.848	0.827	0.829	0.833	0.835	0.808	0.851	0.844	0.842	0.043	Always
OC31	OC32	OC33	OC34	OC35	OC36	OC37	OC38	OC39	OC310	OC3		Category
Mean	3.441	3.292	3.398	3.344	3.292	3.267	3.159	3.338	3.246	3.215	3.290	Often
Std	0.681	0.768	0.731	0.767	0.697	0.747	0.825	0.765	0.825	0.834	0.077	Always
OEFS1	OEFS2	OEFS3	OEFS4	OEFS5	OEFS6	OEFS7	OEFS8	OEFS9	OEFS10	OEFS		Category
Mean	3.159	3.405	3.246	3.231	3.113	3.246	3.215	3.333	3.226	3.359	3.253	Always
Std	0.813	0.77	0.88	0.821	0.912	0.8	0.79	0.764	0.825	0.763	0.089	Often
OEPM1	OEPM2	OEPM3	OEPM4	OEPM5	OEPM6	OEPM7	OEPM8	OEPM9	OEPM10	OEPM		Category
Mean	3.369	3.226	3.518	3.508	3.277	3.344	3.446	3.292	3.251	3.513	3.374	Always
Std	0.686	0.819	0.629	0.612	0.79	0.767	0.733	0.892	0.852	0.645	0.114	Often
OET1	OET2	OET3	OET4	OET5	OET6	OET7	OET8	OET9	OET10	OET1		Category
Mean	3.615	3.359	3.621	3.323	3.472	3.538	3.544	3.395	3.313	3.436	3.462	Often
Std	0.548	0.714	0.527	0.748	0.529	0.558	0.594	0.734	0.773	0.65	0.115	Always
OEE1	OEE2	OEE3	OEE4	OEE5	OEE6	OEE7	OEE8	OEE9	OEE10	OEE		Category
Mean	3.492	3.354	3.385	3.497	3.523	3.600	3.585	3.610	3.667	3.451	3.516	Always
Std	0.612	0.660	0.610	0.612	0.595	0.560	0.544	0.594	0.504	0.619	0.141	Often

In table 1, descriptive statistics for organizational effectiveness, culture, and transformational leadership reveal high mean values and moderate variability, indicating consistent perceptions among respondents. This suggests strong underlying patterns beneficial to Structural Equation

Modeling (SEM), which integrates these statistics to create complex models accounting for measurement error (Kline, 2023). For Transformational Leadership (TL), high mean values (3.246 to 3.352) and low standard deviations (0.063 to 0.114) indicate consistent application and experience, linking these practices to positive organizational outcomes (Banks et al., 2016). Similarly, Organizational Culture (OC) items show favorable mean values (3.127 to 3.379) and low variability, reflecting a uniform perception of cultural traits. Organizational Effectiveness (OE) items also display high mean values (3.253 to 3.516) with moderate variability (0.089 to 0.141), suggesting consistent perceptions of effectiveness with some individual differences. SEM analysis of these statistics will provide deeper insights into the relationships between these constructs, supported by their validity and reliability (Lomax, 2018).

Table 2. Factor Loading from the confirmatory Factory Analysis: Assessment of Transformational Leadership-Inspirational Motivation

Latent Indicator	Estimate	Std. Error	z-value	p	95% Confidence Interval		Standardized		
					Lower	Upper	All	LV	Endo
TLIM TLIM1	1.000	0.000			1.000	1.000	0.830	0.830	0.830
TLIM2	1.155	0.051	22.536	< .001	1.054	1.255	0.958	0.958	0.958
TLIM3	1.128	0.050	22.363	< .001	1.029	1.226	0.936	0.936	0.936
TLIM4	1.089	0.049	22.095	< .001	0.992	1.185	0.903	0.903	0.903
TLIM5	1.176	0.052	22.665	< .001	1.074	1.278	0.976	0.976	0.976
TLIM6	1.046	0.048	21.779	< .001	0.952	1.140	0.868	0.868	0.868
TLIM7	1.094	0.049	22.134	< .001	0.997	1.191	0.908	0.908	0.908
TLIM8	1.115	0.050	22.277	< .001	1.017	1.213	0.925	0.925	0.925
TLIM9	1.022	0.047	21.586	< .001	0.929	1.115	0.848	0.848	0.848
TLIM10	1.097	0.050	22.155	< .001	1.000	1.194	0.910	0.910	0.910
R²									
Model Fit Indices:									
TLIM1 0.689									
TLIM2 0.918									
TLIM3 0.876									
TLIM4 0.816									
TLIM5 0.952									
TLIM6 0.754									
TLIM7 0.824									
TLIM8 0.856									
TLIM9 0.719									
TLIM10 0.829									
Root mean square error of approximation (RMSEA) = 0.000									
Comparative Fit Index (CFI) = 1.000									
Standardized root mean square residual (SRMR) = 0.033									
Goodness of fit index (GFI) = 0.999									
X ² /df = 11.813/35 = 0.338									

Table 2 thoroughly analyzes the component loadings for the latent variable Transformational Leadership-Inspirational Motivation (TLIM), showing that all indicator variables (TLIM1 through TLIM10) strongly represent TLIM. Unstandardized factor loadings are robust (e.g., TLIM2 estimate = 1.155) with small standard errors (around 0.051), and all loadings are statistically significant ($p < 0.001$). Standardized loadings, ranging from 0.830 to 0.976, indicate excellent measurement validity, as values above 0.7 are preferred (Hair et al., 2018; Brown, 2015). Model fit indices confirm an exceptional fit: RMSEA = 0.000, CFI = 1.000, SRMR = 0.033, and GFI = 0.990, aligning with best practice guidelines (Kline, 2023). The Chi-Square to degrees of freedom ratio (χ^2/df) is 0.338, also signifying a good fit. R^2 values, ranging from 0.689 to 0.952, demonstrate that TLIM justifies a considerable ratio of variance in the observed variables, reflecting the model's strong explanatory power (Sarstedt et al., 2021).

Table 3. Factor Loading from the confirmatory Factory Analysis: Assessment of Transformational Leadership-Individualized Consideration

Latent Indicator	Estimate	Std. Error	z-value	p	95% Confidence Interval		Standardized		
					Lower	Upper	All	LV	Endo
TLIC	TLIC1	1.000	0.000		1.000	1.000	0.918	0.918	0.918
	TLIC2	1.004	0.044	22.938 < .001	0.918	1.090	0.922	0.922	0.922
	TLIC3	0.998	0.044	22.887 < .001	0.913	1.084	0.916	0.916	0.916
	TLIC4	0.977	0.043	22.700 < .001	0.892	1.061	0.897	0.897	0.897
	TLIC5	0.972	0.043	22.656 < .001	0.888	1.056	0.892	0.892	0.892
	TLIC6	0.958	0.043	22.535 < .001	0.875	1.042	0.880	0.880	0.880
	TLIC7	0.999	0.044	22.898 < .001	0.914	1.085	0.918	0.918	0.918
	TLIC8	0.990	0.043	22.815 < .001	0.905	1.075	0.909	0.909	0.909
	TLIC9	0.970	0.043	22.639 < .001	0.886	1.054	0.890	0.890	0.890
	TLIC10	0.933	0.042	22.293 < .001	0.851	1.015	0.857	0.857	0.857
<hr/> R²									
TLIC1	0.843	Model Fit Indices:							
TLIC2	0.850								
TLIC3	0.840								
TLIC4	0.804								
TLIC5	0.796								
TLIC6	0.774								
TLIC7	0.842								
TLIC8	0.826								
TLIC9	0.793								
TLIC10	0.734								
Root mean square error of approximation (RMSEA) = 0.000									
Comparative Fit Index (CFI) = 1.000									
Standardized root mean square residual (SRMR) = 0.031									
Goodness of fit index (GFI) = 0.999									
X ² /df = 10.110/35 = 0.289									

The results in Table 3 are strikingly similar to Table 2. The marks of the CFA indicate that the latent factor Transformational Leadership- Individualized Consideration (TLIC) is well represented by the ten indicators (TLIC1 to TLIC10), as evidenced by high factor loadings, narrow confidence intervals, significant z-values, and high R² values. The model fit indices suggest an excellent fit between the hypothesized model and the observed data, with RMSEA, CFI, SRMR, and GFI all meeting or exceeding commonly accepted thresholds for good model fit. These results provide strong evidence for the validity of the TLIC construct in this context, aligning with recent findings that emphasize the importance of robust fit indices in validating measurement models (Sarstedt et al., 2021; Lomax, 2018).

Table 4. Factor Loading from the confirmatory Factory Analysis: Assessment of Transformational Leadership-Idealized Influence

					95% Confidence Interval		Standardized										
Latent Indicator	Estimate	Std. Error	z-value	p	Lower	Upper	All	LV	Endo								
TLII1	1.000	0.000			1.000	1.000	0.911	0.911	0.911								
TLII2	1.070	0.043	24.940	< .001	0.986	1.154	0.975	0.975	0.975								
TLII3	1.041	0.042	24.694	< .001	0.958	1.123	0.948	0.948	0.948								
TLII4	1.018	0.042	24.498	< .001	0.937	1.100	0.928	0.928	0.928								
TLII5	1.039	0.042	24.678	< .001	0.956	1.121	0.947	0.947	0.947								
TLII6	1.018	0.042	24.495	< .001	0.937	1.100	0.928	0.928	0.928								
TLII7	1.038	0.042	24.672	< .001	0.956	1.120	0.946	0.946	0.946								
TLII8	1.056	0.043	24.828	< .001	0.973	1.140	0.963	0.963	0.963								
TLII9	1.058	0.043	24.846	< .001	0.975	1.142	0.965	0.965	0.965								
TLII10	1.071	0.043	24.950	< .001	0.987	1.155	0.976	0.976	0.976								
<hr/> R² <hr/>																	
TLII1	0.831	Model Fit Indices:															
TLII2	0.951																
TLII3	0.900																
TLII4	0.862																
TLII5	0.896																
TLII6	0.861																
TLII7	0.895																
TLII8	0.927																
TLII9	0.931																
TLII10	0.953																
Root mean square error of approximation (RMSEA) = 0.000																	
Comparative Fit Index (CFI) = 1.000																	
Standardized root mean square residual (SRMR) = 0.019																	
Goodness of fit index (GFI) = 1.000																	
X ² /df = 43.204/35 = 0.108																	

Table 4 reveals that the factor loadings for Transformational Leadership-Idealized Influence (TLII) range from 1.000 to 1.071, demonstrating robust relationships between each observed variable (TLII1-TLII10) and the latent construct TLII. These loadings are statistically significant ($p < 0.001$) and are supported by 95% confidence intervals that do not include zero, confirming their reliability

and validity. The R² values, ranging from 0.831 to 0.953, indicate a high proportion of variance explained by TLII, reflecting strong explanatory power. Model fit indices further confirm an excellent fit, with RMSEA = 0.000, CFI = 1.000, SRMR = 0.019, and GFI = 1.000, aligning with established fit criteria (Byrne, 2016; Kline, 2023).

Table 5. Factor Loading from the confirmatory Factory Analysis: Assessment of Transformational Leadership-Intellectual Stimulation

Latent Indicator	Estimate	Std. Error	z-value	p	95% Confidence Interval		Standardized		
					Lower	Upper	All	LV	Endo
TLIS	TLIS1	1.000	0.000		1.000	1.000	0.861	0.861	0.861
	TLIS2	1.041	0.047	22.344 < .001	0.950	1.132	0.897	0.897	0.897
	TLIS3	1.014	0.046	22.122 < .001	0.924	1.104	0.873	0.873	0.873
	TLIS4	1.106	0.048	22.819 < .001	1.011	1.201	0.952	0.952	0.952
	TLIS5	1.093	0.048	22.733 < .001	0.999	1.188	0.942	0.942	0.942
	TLIS6	1.045	0.047	22.376 < .001	0.954	1.137	0.900	0.900	0.900
	TLIS7	1.113	0.049	22.870 < .001	1.018	1.209	0.959	0.959	0.959
	TLIS8	1.094	0.048	22.735 < .001	0.999	1.188	0.942	0.942	0.942
	TLIS9	1.012	0.046	22.108 < .001	0.922	1.102	0.872	0.872	0.872
	TLIS10	0.999	0.045	21.994 < .001	0.910	1.088	0.860	0.860	0.860
<hr/>									
R ²									
TLIS1	0.742	Model Fit Indices:							
TLIS2	0.804								
TLIS3	0.762								
TLIS4	0.907								
TLIS5	0.886								
TLIS6	0.810								
TLIS7	0.919								
TLIS8	0.887								
TLIS9	0.760								
TLIS10	0.739								
Root mean square error of approximation (RMSEA) = 0.000									
Comparative Fit Index (CFI) = 1.000									
Standardized root mean square residual (SRMR) = 0.033									
Goodness of fit index (GFI) = 0.999									
X ² /df = 11.687/35 = 0.334									

Table 5 demonstrates that the factor loadings for Transformational Leadership-Intellectual Stimulation (TLIS) range from 0.999 to 1.113, indicating strong associations between the TLIS indicators (TLIS1-TLIS10) and the latent construct. The loadings are statistically significant ($p < 0.001$) and supported by confidence intervals that do not include zero, reinforcing their reliability. The R² values, ranging from 0.739 to 0.919, highlight a solid proportion of explained variance, reflecting the model's strong explanatory power. Model fit indices further confirm an excellent fit with RMSEA = 0.000, CFI = 1.000, SRMR = 0.033, GFI = 0.999, and a χ^2/df ratio of 0.334, all indicating very good model fit (Kline, 2023).

Figure 1. Determinants of Transformational Leadership

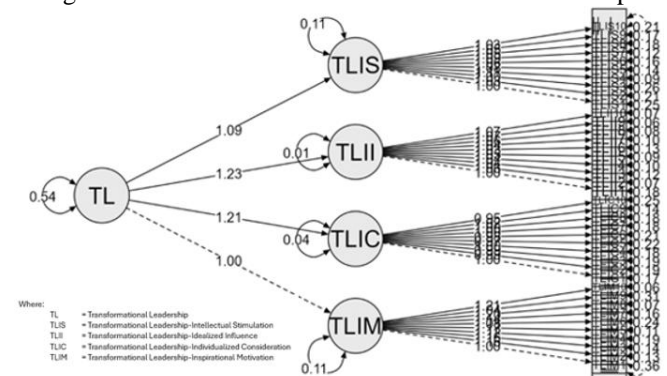


Figure 1 illustrates a Structural Equation Modeling (SEM) diagram, displaying connections between latent variables and observable indicators. The model evaluates various aspects of transformational leadership (TL) and their observed variables, highlighting sub-dimensions such as intellectual stimulation (TLIS), idealized influence (TLII), individualized consideration (TLIC), and inspirational motivation (TLIM).

The weights assigned to these pathways (TL → TLII at 1.23, TL → TLIS at 1.09, TL → TLIC at 1.21, and TL → TLIM at 1.00) indicate the importance of each sub-dimension, with TLII being the most significant. Residual error terms (0.11, 0.01, 0.04, 0.11) suggest that TL explains a substantial amount of variance (Kline, 2023). To enhance transformational leadership outcomes, resource allocation should prioritize sub-dimensions with higher weights. Continuous evaluation and adjustment of strategies based on these weights and errors are essential. Understanding these relationships helps organizations make informed decisions and allocate resources effectively (Avolio & Yammarino, 2013).

Figure 2. Determinants of Organizational Culture

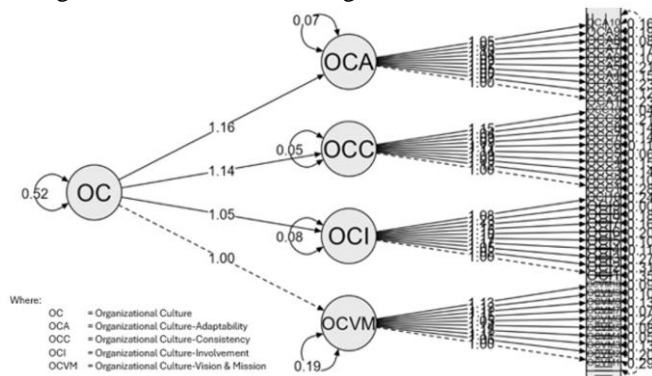


Figure 2 illustrates factors influencing organizational culture (OC) through four sub-components: Adaptability (OCA), Consistency (OCC), Involvement (OCI), and Vision/Mission (OCVM), with path coefficients of 1.16, 1.14, 1.05, and 1.00, respectively. OCA, having the highest path coefficient at 1.16, is the most significant determinant, indicating that changes in adaptability will greatly affect the overall organizational culture (Xenikou, 2022). Organizations should prioritize OCA-related initiatives to drive substantial cultural changes. OCI, with a path coefficient of 1.05, also plays a crucial role, emphasizing the importance of fostering involvement to enhance innovation and resilience (Akpa et al., 2021). While OCVM has the lowest path coefficient at 1.00, it remains essential, and balanced resource allocation should ensure its maintenance and improvement to achieve a strong corporate culture (Kotter et al., 2021).

Figure 3. Determinants of Organizational Effectiveness

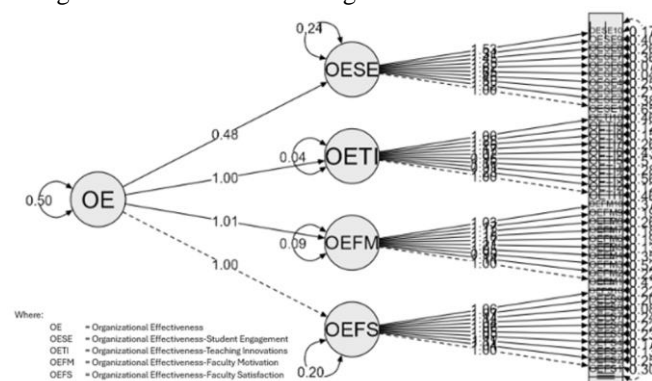


Figure 3 depicts the structural equation model identifying

determinants of Organizational Effectiveness (OE) through Student Engagement (OESE), Teaching Innovation (OETI), Faculty Motivation (OEFM), and Faculty Satisfaction (OEFS). Path coefficients indicate the influence of these variables on OE: OEFM (1.01), OEFS (1.00), OESE (0.48), and OETI (0.04). The highest coefficients for OEFM and OEFS highlight their critical roles in enhancing OE, emphasizing the need for organizations to focus on faculty motivation and satisfaction (Mathialagan & Hashim, 2022). OESE, with a moderate weight of 0.48, is important but less impactful. OETI, with the lowest weight (0.04), supports the notion that while innovation is vital, it primarily aids broader strategic goals (Reschly et al., 2020). The dynamic interplay between transformational leadership and organizational culture significantly affects OE, fostering an environment that encourages creativity, commitment, and continual improvement (Northouse, 2021). Transformational leaders align culture with strategic goals, enhancing organizational agility and resilience (Avolio & Yammarino, 2013; Baek et al., 2019). This approach increases empowerment, job satisfaction, and retention, ultimately boosting organizational effectiveness (Hartnell et al., 2016).

Figure 4. Determinants of Organizational Effectiveness

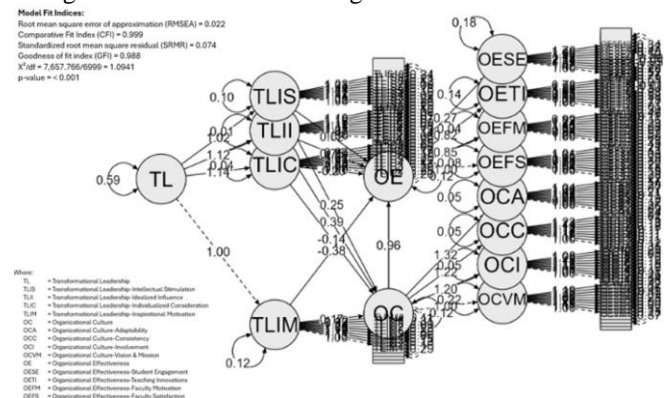


Figure 4 illustrates the dynamic effects of transformational leadership (TL) and organizational culture (OC) on organizational effectiveness (OE). TL, divided into four dimensions (TLIC, TLIS, TLIM, TLII), positively influences OC with a path coefficient of 0.80, suggesting a strong correlation between TL and a favorable OC. Subsequently, OC significantly impacts OE with a path coefficient of 0.96, indicating that a positive OC greatly enhances OE. Directly, TL impacts OE with a path coefficient of 0.25, though its influence on OC is more substantial. Intellectual stimulation (TLIS), idealized influence (TLII), and inspirational motivation (TLIM) directly affect OC and OE, and also indirectly influence OE through OC, highlighting the mediating role of OC (Block, 2003). Model fit indices, such as RMSEA (0.022), CFI (0.999), SRMR (0.074), and GFI (0.988), indicate an excellent fit, confirming the robustness of the model (Kline, 2023). This underscores the critical roles of transformational leadership and organizational culture in enhancing organizational performance.

Table 5. Direct Interaction Effects of Transformational Leadership and Organizational Culture on Organizational Effectiveness

Legend:

p-value < .01 level of significance (***)

p-value < .05 level of significance (**)

p-value < .10 level of significance (*)

Regression coefficients						95% Confidence Interval		Standardized		
Predictor	Outcome	Estimate	Std. Error	z-value	p	Lower	Upper	All	LV	Endo
TLIM	OC	0.169	0.037	4.613	< .001***	0.097	0.240	0.221	0.221	0.221
TLIC	OC	-0.141	0.142	-0.991	0.322	-0.419	0.138	0.197	0.197	0.197
TLII	OC	0.386	0.173	2.224	0.026**	0.046	0.725	0.519	0.519	0.519
TLIS	OC	0.250	0.044	5.673	< .001***	0.164	0.337	0.330	0.330	0.330
TLIM	OE	-0.375	0.076	-4.914	< .001***	-0.525	-0.226	0.377	0.377	0.377
TLIC	OE	-0.233	0.240	-0.971	0.332	-0.703	0.237	0.249	0.249	0.249
TLII	OE	0.749	0.343	2.180	0.029**	0.076	1.422	0.772	0.772	0.772
TLIS	OE	0.015	0.078	0.198	0.843	-0.137	0.168	0.016	0.016	0.016
OC	OE	0.956	0.042	22.632	< .001***	0.873	1.039	0.732	0.732	0.732

In Table 5, the regression analysis highlights the significant predictors of organizational culture (OC) and organizational effectiveness (OE). Transformational leadership-inspirational motivation (TLIM) positively predicts OC with an estimate of 0.169 ($p < 0.001$), while transformational leadership-individualized consideration (TLIC) shows no significant impact on OC. Transformational leadership-idealized influence (TLII) has a marginally significant positive effect on OC (estimate: 0.386, $p = 0.026$). Transformational leadership-intellectual stimulation (TLIS) significantly predicts OC positively (estimate: 0.250, $p < 0.001$). Conversely, TLIM negatively impacts OE (estimate: -0.375, $p < 0.001$), while TLIC does not significantly predict OE. TLII notably positively affects OE (estimate: 0.749, $p < 0.05$), and OC strongly predicts OE positively (estimate: 0.956, $p < 0.001$). These outcomes highlight the prominence of TLIM and TLII in influencing OC and OE, while highlighting OC as a critical mediator in enhancing OE.

Table 6. Mediating Role of Organizational Culture on the Effect of Transformational Leadership-Intellectual Stimulation towards Organizational Effectiveness

Regression coefficients						95% Confidence Interval		Standardized		
Predictor	Outcome	Estimate	Std. Error	z-value	p	Lower	Upper	All	LV	Endo
TLIS	OC	alpha1	0.678	0.012	55.841	< .001***	0.655	0.702	0.860	0.860
	OE	direct1	0.190	0.020	9.593	< .001***	0.151	0.229	0.184	0.184
OC	OE	beta1	0.953	0.030	31.574	< .001***	0.894	1.012	0.729	0.729

Defined parameters					95% Confidence Interval		Standardized		
Name	Estimate	Std. Error	z-value	p	Lower	Upper	All	LV	Endo
indirect1	0.647	0.020	32.079	< .001***	0.607	0.686	0.627	0.627	0.627

Legend:

p-value < .01 level of significance (***)

p-value < .05 level of significance (**)

p-value < .10 level of significance (*)

Table 6 examines the negotiating role of organizational culture (OC) in the affiliation between transformational leadership-intellectual stimulation (TLIS) and organizational effectiveness (OE). The analysis reveals a highly significant positive impact of TLIS on OC (estimate = 0.678, $p < 0.001$), indicating that intellectually stimulating leaders enhance organizational culture. OC, in turn, significantly boosts OE

(estimate = 0.953, $p < 0.001$). Although TLIS directly influences OE positively (estimate = 0.190, $p < 0.001$), the indirect effect through OC is stronger (estimate = 0.647, $p < 0.001$), underscoring OC's substantial mediating role. These findings highlight that fostering a positive organizational culture through intellectual stimulation is crucial for enhancing overall organizational effectiveness, aligning with previous research that links supportive cultures to improved performance (Xenikou, 2022).

Table 7. Mediating Role of Organizational Culture on the Effect of Transformational Leadership-Idealized Influence towards Organizational Effectiveness

Regression coefficients						95% Confidence Interval		Standardized		
Predictor	Outcome	Estimate	Std. Error	z-value	p	Lower	Upper	All	LV	Endo
TLII	OC	alpha2	0.635	0.011	57.154	< .001***	0.613	0.657	0.850	0.850
	OE	direct2	0.166	0.017	9.558	< .001***	0.132	0.200	0.170	0.170
OC	OE	beta2	0.972	0.029	33.623	< .001***	0.915	1.028	0.743	0.743

Defined parameters									
Name	Estimate	Std. Error	z-value	p	95% Confidence Interval		Standardized		
					Lower	Upper	All	LV	Endo
indirect2	0.617	0.018	34.325	< .001***	0.582	0.652	0.632	0.632	0.632

Legend:

p-value < .01 level of significance (***)

p-value < .05 level of significance (**)

p-value < .10 level of significance (*)

Table 7 illustrates the intervening role of Organizational Culture (OC) in the relationship between Transformational Leadership-Idealized Influence (TLII) and Organizational Effectiveness (OE). The data reveal a significant positive association between TLII and OC (estimate = 0.635, $p < 0.001$), suggesting that leaders demonstrating TLII can greatly enhance organizational culture. OC, in turn, strongly correlates with OE (estimate = 0.972, $p < 0.001$), indicating that a robust organizational culture significantly boosts effectiveness. The direct effect of TLII on OE is positive (estimate = 0.166, $p < 0.001$), but the indirect effect through OC is more substantial (estimate = 0.617, $p < 0.001$), highlighting OC's critical mediating role. These findings align with research by Xenikou (2022), emphasizing that fostering a positive organizational culture is crucial for improving overall effectiveness and performance.

Table 8. Mediating Role of Organizational Culture on the Effect of Transformational Leadership-Inspirational Motivation towards Organizational Effectiveness

Regression coefficients						95% Confidence Interval		Standardized		
Predictor	Outcome	Estimate	Std. Error	z-value	p	Lower	Upper	All	LV	Endo
TLIM	OC	alpha3	0.694	0.013	55.023	< .001***	0.669	0.719	0.846	0.846
	OE	direct3	0.176	0.019	9.436	< .001***	0.140	0.213	0.164	0.164
OC	OE	beta3	0.978	0.029	34.223	< .001***	0.922	1.034	0.748	0.748

Defined parameters									
Name	Estimate	Std. Error	z-value	p	95% Confidence Interval		Standardized		
					Lower	Upper	All	LV	Endo
indirect3	0.679	0.020	34.540	< .001***	0.640	0.718	0.633	0.633	0.633

Legend:

p-value < .01 level of significance (***)

p-value < .05 level of significance (**)

p-value < .10 level of significance (*)

In Table 8 reveals how Organizational Culture (OC) mediates the association between Transformational Leadership-Inspirational Motivation (TLIM) and Organizational Effectiveness (OE). TLIM significantly

Dynamics of Transformational Leadership and Its Effects on Organizational Culture and Organizational Effectiveness of Academic Institution: A Structural Equation Modeling Approach

positively impacts OC (estimate = 0.694, $p < 0.001$), suggesting that higher TLIM levels strengthen organizational culture. This strong culture, in turn, greatly enhances OE (estimate = 0.978, $p < 0.001$). While TLIM directly improves OE (estimate = 0.176, $p < 0.001$), this effect is less substantial compared to its impact through OC. The indirect effect of TLIM on OE via OC is significant (estimate = 0.679, $p < 0.001$), indicating that OC plays a major mediating role. These findings align with research by Darmawati et al (2018), which emphasizes that transformational leadership enhances organizational performance primarily through fostering a positive organizational culture. Integrating transformational leadership with a supportive culture is crucial for universities to innovate and excel in higher education (Eisenberger et al., 2020; Trigueros et al., 2020).

V. CONCLUSION

It can be concluded from the results of the study that University X in Cebu City, Philippines uncovers significant insights into the interplay of transformational leadership, organizational culture, and effectiveness. High mean values and low variability in descriptive statistics indicate positive respondent perceptions. Exceptional model fit indices (RMSEA, CFI, GFI) and a low SRMR value suggest a robust model with minimal residuals.

Findings highlight strong correlations between transformational leadership aspects (idealized influence, inspirational motivation, intellectual stimulation) and organizational culture, which, in turn, enhances organizational effectiveness. Organizational culture mediates the impact of transformational leadership, channeling influence through established vision, involvement, adaptability and consistency. Transformational Leadership-Individualized Consideration, while not directly impacting culture, contributes indirectly via cultural mediation. As a result, further study on other foregoing variables should be taken into consideration, as it has not yet had a direct effect on the academic institution's effectiveness.

These results validate transformational leadership theory by Burns (1978) and Bass (1985), emphasizing the crucial role of transformational leaders in shaping organizational outcomes or effectiveness through direct influence and a supportive organizational culture. Thus, the theoretical framework and empirical evidence from Burns and Bass support the significant insights into the interplay between transformational leadership, organizational culture, and effectiveness. This conformity underscores the validity and relevance of transformational leadership theory in understanding and enhancing organizational dynamics.

REFERENCES

- [1] Akpa, V. O., Asikhia, O. U., & Nneji, N. E. (2021). Organizational culture and organizational performance: A review of literature. *International Journal of Advances in Engineering and Management*, 3(1), 361-372.
- [2] Avolio, B. J., & Yammarino, F. J. (Eds.). (2013). Introduction to, and overview of, transformational and charismatic leadership. In *Transformational and charismatic leadership: The road ahead 10th anniversary edition* (pp. xxvii-xxxiii). Emerald Group Publishing Limited.
- [3] Baek, P., Chang, J., & Kim, T. (2019). Organizational culture now and going forward. *Journal of Organizational Change Management*, 32(6), 650-668.
- [4] Banks, G. C., McCauley, K. D., Gardner, W. L., & Guler, C. E. (2016). A meta-analytic review of authentic and transformational leadership: A test for redundancy. *The leadership quarterly*, 27(4), 634-652.
- [5] Byrne, B. M. (2016). Adaptation of assessment scales in cross-national research: Issues, guidelines, and caveats. *International Perspectives in Psychology*, 5(1), 51-65.
- [6] Buil, I., Martínez, E., & Matute, J. (2019). Transformational leadership and employee performance: The role of identification, engagement and proactive personality. *International journal of hospitality management*, 77, 64-75.
- [7] Busari, A. H., Khan, S. N., Abdullah, S. M., & Mughal, Y. H. (2019). Transformational leadership style, followership, and factors of employees' reactions towards organizational change. *Journal of Asia Business Studies*, 14(2), 181-209.
- [8] Cherry, K. (2023). How to lead: 6 leadership styles and frameworks. *Very Well Mind*.
- [9] Darmawati, L. E. S., Nirwanto, N., & Subiyantoro, E. (2018). The Effect Organizational Culture as a Mediation of Transformational Leadership to Smes Organization Performance in Malang City-East Java (Study on Small Food and Drink). *IOSR Journal of Business and Management (IOSR-JBM)*, 20(6), 6-12.
- [10] Eisenberger, R., Rhoades Shanock, L., & Wen, X. (2020). Perceived organizational support: Why caring about employees counts. *Annual Review of Organizational Psychology and Organizational Behavior*, 7(1), 101-124.
- [11] Hartnell, C. A., Kinicki, A. J., Lambert, L. S., Fugate, M., & Doyle Corner, P. (2016). Do similarities or differences between CEO leadership and organizational culture have a more positive effect on firm performance? A test of competing predictions. *Journal of Applied Psychology*, 101(6), 846.
- [12] Howard, A., Murray, D., & Tolisano, J. (2023). *Cultivating Workplace Culture: Unveiling the Hidden Roots A Comprehensive Guide to Transforming your Organization's Culture for Sustainable Success*. Available at SSRN 4818305.
- [13] Islam, M. N., Furuoka, F., & Idris, A. (2021). Mapping the relationship between transformational leadership, trust in leadership and employee championing behavior during organizational change. *Asia Pacific Management Review*, 26(2), 95-102.
- [14] Kline, R. B. (2023). *Principles and practice of structural equation modeling*. Guilford publications.
- [15] Kotter, J. P., Brown, T., Martin, R. L., & Rigby, D. K. (2021). *HBR's 10 Must Reads on Change Management*. Vol. 2 (with bonus article "Accelerate!" by John P. Kotter). Harvard Business Press.
- [16] Lomax, R. G. (2018). Structural equation modeling: Multisample covariance and mean structures. In *The reviewer's guide to quantitative methods in the social sciences* (pp. 457-466). Routledge.
- [17] Mathialagan, P., & Hashim, R. A. (2022). Motivation Factors towards Organizational Effectiveness during COVID-19 Pandemic among Academic Staff in Private Colleges in Malaysia. *The International Journal of Business & Management*, 10(6).
- [18] Northouse, P. G. (2021). *Leadership: Theory and practice*. Sage publications.
- [19] Nurtjahjani, F., Noermijati, N., Hadiwidjojo, D., & Irawanto, D. W. (2020, April). Transformational leadership in higher education:(A Study in Indonesian Universities). In 3rd Asia Pacific international conference of management and business science (AICMBS 2019) (pp. 95-101). Atlantis Press.
- [20] Rahman, Z., & Hadi, H. K. (2019). Does organizational culture matters in organizational change? Transformational leadership and cynicism about organizational change. *KnE Social Sciences*, 353-362.
- [21] Reschly, A. L., Pohl, A. J., & Christenson, S. L. (Eds.). (2020). *Student engagement: Effective academic, behavioral, cognitive, and affective interventions at school*. Springer Nature.
- [22] Saad Alessa, G. (2021). The dimensions of transformational leadership and its organizational effects in public universities in Saudi Arabia: A systematic review. *Frontiers in psychology*, 12, 682092.
- [23] Sakat, M. A., & Ye, L. (2021). Transformational Leadership in the Chinese Culture: A Quantitative Study on the Impact of Transformational Leadership on Chinese Internet Companies' Performance.
- [24] Sarstedt, M., Ringle, C. M., & Hair, J. F. (2021). Partial least squares structural equation modeling. In *Handbook of market research* (pp. 587-632). Cham: Springer International Publishing.
- [25] Suphattanakul, O. (2017). Role of transformational leadership in effective strategic implementation with the moderating effect of

organizational culture. *Journal of Business and Social Review in Emerging Economies*, 3(2), 253-262.

- [26] Trigueros, R., Padilla, A., Aguilar-Parra, J. M., Mercader, I., López-Liria, R., & Rocamora, P. (2020). The influence of transformational teacher leadership on academic motivation and resilience, burnout and academic performance. *International journal of environmental research and public health*, 17(20), 7687.
- [27] Xenikou, A. (2022). Leadership and organizational culture. In *Handbook of research methods for Organisational culture* (pp. 23-38). Edward Elgar Publishing.



Author's Profile. Passed the Licensure Examination for Teachers in 2018. Pursued and completed Masters (2016) and Doctorate Degree (2024) in Business Administration. A Certified Marketing Management Specialist and presently working as a faculty member in the BSBA Program of School of Business Department at Southwestern University PHINMA.