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Determinants of Leadership Performance in Open Online Flexible Distance Learning Higher Education Institutions: The Mediating Role of Leader Self-Efficacy

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Abstract

This study investigates the relationship between organizational culture, leadership style, adaptability, and leadership performance with a leader's self-efficacy as a mediator in open online flexible distance learning higher education institutions. The study aims to explore the impact of these factors on leadership performance and identify the key variables that influence leader self-efficacy. A quantitative approach and quantitative data collection were employed for this study. The survey questionnaires were distributed via email using purposive sampling, yielding a satisfactory response rate. Out of 472 surveys distributed, 361 were collected, and 342 clean data were used in the analysis. Data analysis was conducted using Partial Least Squares Structural Equation Modeling (PLS-SEM) and thematic analysis. The results indicate that organizational culture, leadership style, and adaptability have a significant impact on leader self-efficacy, which in turn influences leadership performance. The study also finds that leader self-efficacy mediates the relationship between organizational culture and leadership performance. The findings suggest that institutions should prioritize the development of leadership qualities, foster a culture that supports adaptability and innovation, and enhance self-efficacy among leaders. Future studies can build upon these findings by exploring the relationship between leader self-efficacy and other leadership outcomes, as well as the impact of organizational culture and technology on leadership effectiveness in various contexts. The study's implications highlight the importance of leader's self-efficacy, the need for effective leadership development programs, and the importance of creating a culture that supports adaptability and innovation in open online flexible distance learning higher education institutions.

Keywords: Organizational Culture, Leadership Style, Adaptability, Leader's Self-Efficacy, Leader's Performance

Introduction

The performance of leaders in higher education institutions (HEIs) is paramount in shaping these institutions' overall success and effectiveness (Ahmed et al., 2022). Leaders in HEIs play a pivotal role in fostering a positive and productive environment that supports the academic and professional growth of faculty, staff, and students (Kebah et al., 2019). Effective leadership can significantly impact various aspects of organizational performance, including job satisfaction, employee commitment, and overall institutional success (Ui Hassan & Ikramullah, 2024). The landscape of HEIs is currently experiencing significant changes, such as increasing competition for student enrollment, financial constraints, and the need for innovative curricula and technologies (Ibus, 2021). In response to these challenges, leaders must adapt their styles to meet the evolving needs of their institutions (Kebah et al., 2019). Research suggests that leaders who adopt a situational approach, tailoring their leadership style to the specific context and followers, tend to achieve better results (Khan et al., 2023). Additionally, there is a growing emphasis on the importance of emotional intelligence and interpersonal skills in effective leadership. Despite the critical importance of leader performance in HEIs, there are significant research gaps in this area (Dijourova et al., 2020). For instance, there is a need for more studies that investigate the impact of leadership styles on job satisfaction and organizational performance in different cultural and institutional contexts (Mujeeb et al., 2021). Additionally, research on the role of ambidextrous capability in enhancing organizational performance is limited and requires further exploration. Another area that warrants further research is the influence of gender and diversity on leadership effectiveness in HEIs (Javed et al., 2021). One of the main research gaps in leader performance is the lack of longitudinal studies that examine the long-term effects of leadership styles on organizational outcomes (Osman et al., 2018). Most existing studies are cross-sectional, making it difficult to establish causal relationships between leadership and performance (Ren & Shen, 2024). Another gap is the limited research on the impact of leadership on student learning outcomes and success. As HEIs are primarily focused on student learning and development, it is crucial to understand how leadership styles influence these outcomes (Rabiul et al., 2022). The significance of this study lies in its potential to inform policymakers, HEIs, and employees about the importance of effective leadership in achieving institutional success. By understanding the various factors that influence leader performance, policymakers can develop more effective strategies for supporting and developing leaders in HEIs. Similarly, HEIs can use this knowledge to improve their leadership development programs and create more effective leadership structures. Employees, too, can benefit from this research by gaining insights into the types of leadership styles that are most effective in promoting job satisfaction, organizational commitment, and overall performance. This study aims to assess the direct and indirect relationship between organizational culture, leadership style, adaptability, and leader's performance with leadership self-efficacy as a mediator in open online flexible distance learning higher education institutions from employees' perspectives.

Literature Review

Underpinning Theory

The Social Cognitive Theory (SCT) Bandura (1986) provides a robust theoretical foundation to underpin the research on the relationship between organizational culture, leadership style, adaptability, and a leader's performance with a leader's self-efficacy as a mediator in higher education institutions. At the core of SCT is the concept of reciprocal determinism, which

posits that an individual's behavior, personal factors (such as beliefs and self-efficacy), and the environment interact and influence each other bidirectionally. This aligns well with the focus of the proposed study, as it suggests that a leader's self-efficacy beliefs can shape their behavior and performance, while also being influenced by the organizational culture and leadership style within the higher education institution (Bandura, 1997). SCT emphasizes the role of self-efficacy, which refers to an individual's belief in their capabilities to execute a course of action and achieve desired outcomes. Leaders with high self-efficacy are more likely to persist in the face of challenges, set ambitious goals, and demonstrate adaptability - all of which are crucial for effective leadership in the dynamic higher education landscape. Furthermore, SCT highlights the importance of observational learning, where individuals acquire new behaviors by observing others. This suggests that the leadership style and behaviors modelled within the organization can influence the self-efficacy and performance of other leaders. By grounding the proposed study in the theoretical framework of SCT, researchers can gain a deeper understanding of the complex interplay between the key variables and their impact on leader performance in higher education institutions.

Relationship between Adaptability, Self-Efficacy & Leadership Performance

The ability of leaders to adapt to changing circumstances is crucial for success in higher education institutions (HEIs). Adaptable leaders are better equipped to navigate the dynamic challenges facing HEIs, such as evolving student needs, technological advancements, and shifting funding landscapes (Sahin & Gulsen, 2022). Research suggests that a leader's adaptability is closely linked to their self-efficacy, or their belief in their capabilities to perform effectively. Leaders with high self-efficacy are more likely to persist in the face of challenges, set ambitious goals, and demonstrate the flexibility required for adaptability (Yang et al., 2022). This, in turn, can positively impact their overall leadership performance, as they are better able to inspire and motivate their teams, make strategic decisions, and drive organizational change (Imran & Iqbal, 2021). The search results highlight the mediating role of self-efficacy in the relationship between leadership adaptability and performance (N Wickneswary et al., 2024). Specifically, leaders who exhibit a high degree of adaptability tend to have stronger self-efficacy beliefs, which then translate into enhanced leadership effectiveness and organizational outcomes (Mujeeb et al., 2021). By fostering a culture that supports adaptability and self-efficacy, HEIs can empower their leaders to navigate the complex challenges of the modern higher education landscape and drive institutional success (Riaz et al., 2023). Hence, the following hypotheses were proposed for this study:

H1: There is a relationship between adaptability and leadership performance in open online flexible distance learning higher education institutions

H2: There is a relationship between adaptability and a leader's self-efficacy in open online flexible distance learning higher education institutions

H3: There is a mediating effect of a leader's self-efficacy on the relationship between adaptability and leadership performance in open online flexible distance learning higher education institutions

Relationship between Leadership Style, Self-Efficacy & Leadership Performance

The relationship between leadership style and leadership performance with self-efficacy as a mediator in higher education institutions is a critical area of study (Siregar, 2021). Research has shown that leadership style significantly influences leadership performance, with self-

efficacy playing a crucial mediating role in this relationship (rabiul et al., 2022). Leadership style, whether charismatic or non-charismatic, has been found to impact leadership effectiveness in higher education institutions (Mulyanti et al., 2023). The presence of a strong and effective leadership style can enhance the overall performance of leaders within these institutions, influencing their ability to inspire, motivate, and drive positive change (Li et al., 2020). Self-efficacy, on the other hand, acts as a mediator in this relationship by influencing leaders' beliefs in their capabilities to perform effectively (Ul Hassan & Ikramullah, 2024). Leaders with high self-efficacy are more likely to exhibit adaptive behaviors, set ambitious goals, and persist in the face of challenges, ultimately enhancing their leadership performance (Ullah et al., 2021). Understanding the interplay between leadership style, self-efficacy, and leadership performance is crucial for developing effective leadership development programs in higher education institutions (Ananda et al., 2022). By recognizing the mediating role of self-efficacy, institutions can empower their leaders to navigate the complexities of the educational landscape and drive positive outcomes for their organizations (Widianto, 2021). Thus, the following hypotheses were proposed for this study:

H4: There is a relationship between leadership style and leadership performance in open online flexible distance learning higher education institutions

H5: There is a relationship between leadership style and a leader's self-efficacy in open online flexible distance learning higher education institutions

H6: There is a mediating effect of a leader's self-efficacy on the relationship between Leadership style and leadership performance in open online flexible distance learning higher education institutions

Relationship between Organizational Culture, Self-Efficacy & Leadership Performance

The relationship between organizational culture and leadership performance, with self-efficacy as a mediator, is a crucial area of study in the context of higher education institutions (HEIs) (Adu & Nawangsari, 2022). Research suggests that organizational culture, which encompasses the shared values, beliefs, and assumptions within an institution, can significantly impact the performance of leaders. A culture that fosters innovation, collaboration, and adaptability tends to enable leaders to thrive and achieve better results (Azeem & Hanoum, 2024). Conversely, a rigid or unsupportive organizational culture can hinder leaders' ability to effectively navigate the challenges facing HEIs. The search results highlight the mediating role of self-efficacy in this relationship (Sofiyan et al., 2024). Leaders with high self-efficacy, or a strong belief in their capabilities, are more likely to exhibit adaptive behaviors, set ambitious goals, and persist in the face of challenges. This, in turn, can enhance their overall leadership performance and their ability to drive positive change within the institution (Juliansyah et al., 2022). By understanding the interplay between organizational culture, self-efficacy, and leadership performance, HEIs can develop more effective strategies for supporting and empowering their leaders (Pratiwi & Nawangsari, 2021). This may involve fostering a culture that values adaptability, providing leadership development programs that focus on building self-efficacy, and implementing organizational structures that enable leaders to thrive. Ultimately, this can lead to improved institutional outcomes and better serve the needs of students, faculty, and staff (Virgiawan et al., 2021). Therefore, the following hypotheses were proposed for this study:

H7: There is a relationship between organizational culture and leadership performance in open online flexible distance learning higher education institutions
H8: There is a relationship between organizational culture and a leader's self-efficacy in open online flexible distance learning higher education institutions
H9: There is a relationship between leader's self-efficacy and leadership performance in open online flexible distance learning higher education institutions
H10: There is a mediating effect of a leader's self-efficacy on the relationship between organizational culture and leadership performance in open online flexible distance learning higher education institutions

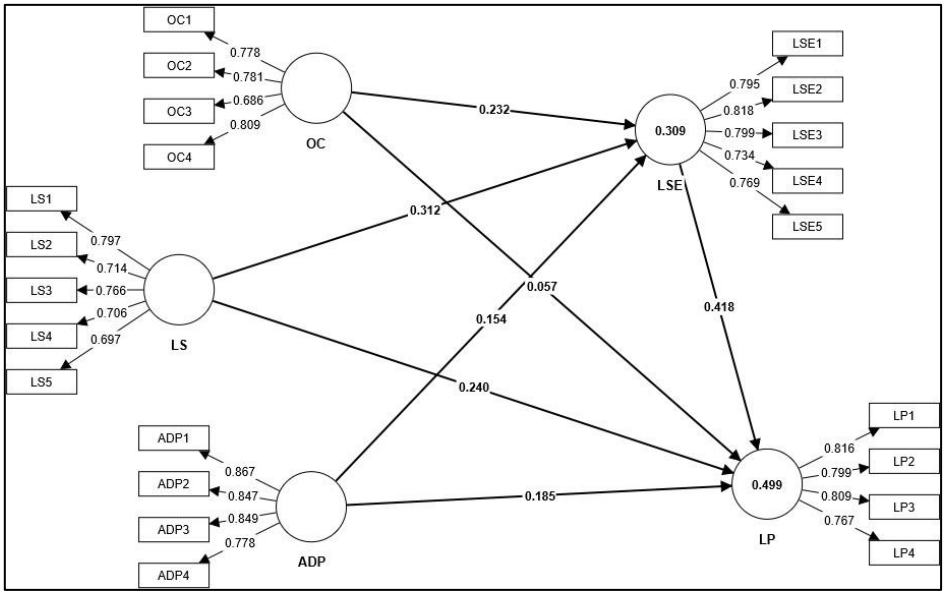

Figure 1: Research Framework
Notes: OC=Organizational Culture LS=Leadership Style ADP=Adaptability LSE=Leader's Self-Efficacy LP=Leadership Performance

Methodology

This study aimed to comprehensively evaluate the direct and indirect impact of leaders' engagement, leadership style, adaptability, and leaders' performance, with leaders' self-efficacy as a mediator, in open online distance learning higher education institutions. To achieve this objective, researchers surveyed to gather primary data, meticulously selecting reliable and valid measurements through a thorough examination of previous research. The survey questionnaires were then distributed via email to selected participants, employing purposive sampling due to the absence of a comprehensive population list. A total of 22 observed variables were scrutinized, incorporating exogenous variables such as organizational culture, adapted from Van Den Berg (2017) (5 items); leadership style, adapted from Madlock (2008) (5 items); and adaptability, adapted from Martin et al (2012) (4 items). The study's mediating factor was leaders' self-efficacy, drawn from Bobbio & Manganelli (2009) (5 items), while the endogenous variable was leaders' performance, sourced from Bratton & Gold (2017) (4 items). Respondents assessed elements within each construct using a Likert scale with five response options ranging from strongly disagree to strongly agree. Out of 472 surveys distributed, 361 were collected, yielding a satisfactory response rate of 76.5%, conducive for employing structural equation modeling (SEM) in data analysis. Of the collected surveys, 342 were deemed clean and suitable for analysis. Researchers selected Smartpls4

software, known for its proficiency in structural equation modeling (SEM) techniques, for data analysis and hypothesis testing. This choice was influenced by the software's robust assessment capabilities and expertise in managing multivariate data analysis, aligning with the study's objectives and adhering to the recommendations of Ringle et al. (2022). Smartpls4 facilitated a meticulous evaluation of the proposed hypotheses and conducted extensive multivariate data analysis, enabling a comprehensive assessment of both measurement and structural models.

Data Analysis

Respondents' Profile

The respondent profiles in this study show a diverse representation across various demographic characteristics. In terms of gender, the majority of the respondents are male, accounting for 59.9% (205 individuals), while females make up 40.1% (137 individuals) of the total sample. This suggests a slightly higher participation from male leaders in open online distance learning higher education institutions. When examining age distribution, the largest group falls within the 41-50 years old category, comprising 40.6% (139 respondents), followed by the 31-40 years old group at 23.1% (79 respondents) and the 51-60 years old group at 19.9% (68 respondents). The youngest age group (<30 years old) and the oldest age group (>60 years old) have the lowest representation, with 7.6% (26 respondents) and 8.8% (30 respondents), respectively. This indicates that the majority of the leaders in these institutions are middle-aged, with a significant presence of younger and older leaders as well. In terms of years of service, the respondents are fairly evenly distributed across the 11-15 years and 16-20 years categories, each accounting for 30.1% (103 respondents). The 6-10 years and 21-25 years groups follow with 12.6% (43 respondents) and 12.9% (44 respondents), respectively. The <5 years, 26-30 years, and >30 years categories have the lowest representation, ranging from 4.4% to 5.3%. This suggests that the majority of the leaders have substantial experience in their roles, with a smaller proportion of both newer and more seasoned leaders. Finally, the respondents are divided into two main categories based on their position: academicians and non-academicians. Academicians make up the majority, accounting for 57.3% (196 respondents), while non-academicians comprise 42.7% (146 respondents) of the total sample. This indicates that the study has a strong representation of both academic and non-academic leaders in open online distance-learning higher education institutions.

Common Method Bias

Kock (2015); Kock & Lynn (2012) introduced a comprehensive methodology for assessing both vertical and horizontal collinearity in structural equation modeling (SEM) employing partial least squares (PLS-SEM). This approach, known as the collinearity test, relies on variance inflation factors (VIFs) to identify potential common method bias within a model.

The identification of pathological collinearity is contingent upon VIFs exceeding 3.3, indicating a significant concern for common method bias within the model. Conversely, if the VIFs derived from the comprehensive collinearity assessment fall below 3.3, it can be inferred that the model remains unaffected by common method bias (Table 1).

Table 1
Full Collinearity

	LP	OC	LS	ADP	LSE
LP		1.948	1.829	1.858	1.581
OC	1.441		1.333	1.419	1.403
LS	1.536	1.514		1.616	1.611
ADP	1.264	1.306	1.309		1.328
LSE	1.427	1.713	1.732	1.763	

Measurement Model

In this investigation, we embraced the methodology advocated by Hair et al. (2017) to evaluate each measurement in both the first and second order, facilitating the identification of items with loadings below the 0.7 threshold. The analyses of construct reliability and validity revealed that the Average Variance Extracted (AVE) for all constructs ranged from 0.543 to 0.699, surpassing the 0.5 benchmark, thereby indicating well-established convergent validity (Table 3). Furthermore, the composite reliability for all constructs exceeded 0.7, falling within the range of 0.791 to 0.857. Additionally, Cronbach's alpha values for all constructs were greater than 0.7, varying from 0.790 to 0.856 (Table 2). To ensure discriminant validity, the initial step involved the evaluation of cross-loadings, ensuring appropriate representation and measurement of respective constructs (Table 2). Subsequently, the Heterotrait-Monotrait (HTMT) ratio was employed for further assessment, adhering to the recommended criterion for examining discriminant validity in Variance-Based Structural Equation Modeling (VB-SEM) as outlined by (Henseler et al., 2015). Table 3 presented the HTMT ratios, original sample, and 95% confidence intervals, affirming compliance with the HTMT threshold of 0.85.

Table 2
Construct Reliability and Validity & Cross Loadings

Constructs	Indicators	Loadings	CA	CR	AVE
Adaptability	ADP1	0.867	0.856	0.857	0.699
	ADP2	0.847			
	ADP3	0.849			
	ADP4	0.778			
Leader	LP1	0.816	0.810	0.815	0.636
Performance	LP2	0.799			
	LP3	0.809			
	LP4	0.767			
Leadership	LS1	0.797	0.790	0.791	0.543
Style	LS2	0.714			
	LS3	0.766			
	LS4	0.706			
	LS5	0.697			
Leader	LSE1	0.795	0.843	0.847	0.614
Self-Efficacy	LSE2	0.818			
	LSE3	0.799			
	LSE4	0.734			
	LSE5	0.769			
Organizational	OC1	0.778	0.762	0.763	0.585
Culture	OC2	0.781			
	OC3	0.686			
	OC4	0.809			

Notes: CA=Cronbach Alpha CR=Composite Reliability AVE=Average Variance Extracted

Table 3
Hetrotrait-Monotrait (HTMT) Ratios

Constructs	ADP	LP	LS	LSE
LP	0.535			
LS	0.470	0.665		
LSE	0.420	0.749	0.584	
OC	0.436	0.533	0.625	0.540

Structural Model

In this study, the evaluation of the structural model adhered to the methodology delineated by Hair et al (2017), entailing an in-depth scrutiny of pathway coefficients (β) and coefficients of determination (R2). To achieve this, the Partial Least Squares (PLS) method was employed, leveraging 5000 sub-samples to ascertain the significance level of path coefficients. The results from hypothesis testing for confidence intervals, encompassing path coefficients (beta), corresponding t-statistics, and p-values, are meticulously presented in Table 4. This rigorous examination offers invaluable insights into the significance and robustness of the relationships among the variables within the structural model. The comprehensive hypotheses testing results furnished in Table 4 furnish a nuanced analysis of each hypothesis, accentuating Beta coefficients, T-statistics, P-values, and the ultimate decisions concerning hypothesis support, thus enhancing the depth and clarity of the study's findings.

For *H1*, the beta value for this hypothesis is 0.185, indicating a moderate positive relationship between adaptability and leadership performance. The t-statistics value is 3.614, which is statistically significant at a 0.000 level. The p-value is also 0.000. Therefore, the decision is to

accept H1, suggesting that adaptability has a positive and significant impact on leadership performance. For *H2*, the beta value for this hypothesis is 0.154, indicating a moderate positive relationship between adaptability and leadership self-efficacy. The t-statistics value is 2.957, which is statistically significant at a 0.003 level. The p-value is also 0.003. Therefore, the decision is to accept H2, suggesting that adaptability has a positive and significant impact on leadership self-efficacy. For *H3*, the beta value for this hypothesis is 0.064, indicating a weak positive relationship between adaptability and leadership self-efficacy, which in turn affects leadership performance. The t-statistics value is 2.784, which is statistically significant at a 0.005 level. The p-value is also 0.005, indicating that the null hypothesis can be rejected. Therefore, the decision is to accept H3, suggesting that adaptability has a positive and significant indirect impact on leadership performance through leadership self-efficacy.

For *H4*, the beta value for this hypothesis is 0.240, indicating a strong positive relationship between leadership style and leadership performance. The t-statistics value is 4.483, which is statistically significant at a 0.000 level. The p-value is also 0.000. Therefore, the decision is to accept H4, suggesting that leadership style has a positive and significant impact on leadership performance. For *H5*, The beta value for this hypothesis is 0.312, indicating a strong positive relationship between leadership style and leadership self-efficacy. The t-statistics value is 6.024, which is statistically significant at a 0.000 level. The p-value is also 0.000, indicating that the null hypothesis can be rejected. Therefore, the decision is to accept H5, suggesting that leadership style has a positive and significant impact on leadership self-efficacy. For *H6*, the beta value for this hypothesis is 0.130, indicating a weak positive relationship between leadership style and leadership self-efficacy, which in turn affects leadership performance. The t-statistics value is 5.154, which is statistically significant at a 0.000 level. The p-value is also 0.000. Therefore, the decision is to accept H6, suggesting that leadership style has a positive and significant indirect impact on leadership performance through leadership self-efficacy.

For *H7*, the beta value for this hypothesis is 0.057, indicating a weak positive relationship between organizational culture and leadership performance. The t-statistics value is 1.082, which is not statistically significant at a 0.279 level. The p-value is also 0.279. Therefore, the decision is to reject H7, suggesting that organizational culture does not have a significant impact on leadership performance. For *H8*, the beta value for this hypothesis is 0.232, indicating a moderate positive relationship between organizational culture and leadership self-efficacy. The t-statistics value is 4.102, which is statistically significant at a 0.000 level. The p-value is also 0.000. Therefore, the decision is to accept H8, suggesting that organizational culture has a positive and significant impact on leadership self-efficacy. For *H9*, the beta value for this hypothesis is 0.418, indicating a strong positive relationship between leadership self-efficacy and leadership performance. The t-statistics value is 8.570, which is statistically significant at a 0.000 level. The p-value is also 0.000. Therefore, the decision is to accept H9, suggesting that leadership self-efficacy has a positive and significant impact on leadership performance. Lastly, for *H10,* the beta value for this hypothesis is 0.097, indicating a weak positive relationship between organizational culture and leadership self-efficacy, which in turn affects leadership performance. The t-statistics value is 3.437, which is statistically significant at a 0.001 level. The p-value is also 0.001. Therefore, the decision is to accept H10, suggesting that organizational culture has a positive and significant indirect impact on leadership performance through leadership self-efficacy.

Table 4
Hypotheses Testing Results

Hypotheses	Beta	T- statistics	P- values	2.50%	97.50%	Decision
H1: ADP -> LP	0.185	3.614	0.000	0.083	0.283	*Accepted*
H2: ADP -> LSE	0.154	2.957	0.003	0.053	0.257	*Accepted*
H3: ADP -> LSE -> LP	0.064	2.784	0.005	0.023	0.113	*Accepted*
H4: LS -> LP	0.240	4.483	0.000	0.134	0.34	*Accepted*
H5: LS -> LSE	0.312	6.024	0.000	0.206	0.41	*Accepted*
H6: LS -> LSE -> LP	0.130	5.154	0.000	0.084	0.183	*Accepted*
H7: OC -> LP	0.057	**1.082**	**0.279**	**-0.042**	**0.165**	***Rejected***
H8: OC -> LSE	0.232	4.102	0.000	0.119	0.341	*Accepted*
H9: LSE -> LP	0.418	8.570	0.000	0.324	0.513	*Accepted*
H10: OC -> LSE -> LP	0.097	3.437	0.001	0.047	0.158	*Accepted*

Table 5 provides a comprehensive summary of effect sizes (f2), evaluated independently of sample size, according to Cohen's criteria (1992): small (0.020 to 0.150), medium (0.150 to 0.350), or large (0.350 or greater). The observed effect sizes ranged from small (0.004) to large (0.240). Intrinsic Value Inflation Factor (VIF) values, as outlined in Table 5, remained below the more lenient threshold of 5, with the highest value recorded at 1.557. This level of collinearity facilitates meaningful comparisons of sizes and interpretation of coefficients within the structural model.

Table 5
Effect Sizes(f2) & Variance Inflation Factor (VIF)

	f2		VIF	
	LP	LSE	LP	LSE
ADP	0.054	0.028	1.267	1.232
LS	0.074	0.100	1.557	1.416
LSE	0.240		1.448	
OC	0.004	0.057	1.453	1.375

The evaluation of the model's inference and managerial recommendations was executed through out-of-sample predictive analysis employing the PLSpredict method (Shmueli et al., 2016, 2019). Table 6 illustrates that PLS-SEM generated superior Q2 predictions (>0) in contrast to naive mean predictions, consistently exhibiting lower RMSE values than linear model (LM) benchmarks, thus underscoring its predictive prowess. Furthermore, the RMSE values for PLS-SEM predictions consistently outperformed those of the linear model (LM) prediction benchmark in nine out of nine instances, emphasizing the predictive strength of the proposed model as delineated in Table 6. The introduction of the Cross-Validated Predictive Ability Test (CVPAT) by Hair et al (2022), and its integration with PLSpredict analysis by Liengaard et al (2021), are noteworthy. This integration enables a more comprehensive evaluation of the predictive capabilities of PLS-SEM, providing a robust assessment of its performance.

Table 6
PLSpredicts

Items	Q^2predict	PLS-RMSE		PLS-LM
LP1	0.294	0.610	0.617	-0.007
LP2	0.214	0.613	0.619	-0.006
LP3	0.230	0.674	0.697	-0.023
LP4	0.164	0.712	0.723	-0.011
LSE1	0.235	0.619	0.623	-0.004
LSE2	0.191	0.624	0.638	-0.014
LSE3	0.147	0.668	0.670	-0.002
LSE4	0.135	0.688	0.699	-0.011
LSE5	0.171	0.620	0.639	-0.019

Table 7
Cross-Validated Predictive Ability Test (CVPAT)

	Average loss difference	t-value	p-value
LP	-0.123	6.028	0.000
LSE	-0.088	4.589	0.000
Overall	-0.104	6.022	0.000

Ringle and Sarstedt (2016); Hair et al (2018) introduced a powerful analytical tool known as Importance Performance Map Analysis (IPMA), which offers insights into the significance and effectiveness of latent variables in explaining acceptance. In their study, as detailed in Table 8, they explored the impact of various factors on performance within the context of open online distance learning higher education institutions. The results revealed compelling findings regarding key variables' relative importance and performance. Leader self-efficacy emerged as the most crucial factor, with a significant impact on performance (0.418), followed closely by leadership style (0.370), adaptability (0.250), and organizational culture (0.154). These findings underscore the critical role of these variables in driving performance outcomes. Interestingly, while adaptability scored the highest in performance (66.582) on a scale of 0 to 100, leader self-efficacy scored the lowest (60.471). This suggests room for improvement in leader self-efficacy to enhance overall performance outcomes. Despite being identified as the most important factor for leader performance, leader self-efficacy displayed relatively lower performance levels.

Table 8
Importance-Performance Map Analysis

Constructs	Total Effect	performance
ADP	0.250	66.582
LS	0.370	65.537
LSE	0.418	60.471
OC	0.154	66.509

Discussion & Conclusion

To ensure that organizational culture, leadership style, and adaptability can effectively and positively influence leadership performance with a leader's self-efficacy as a mediator in Open Online Flexible Distance Learning Higher Education Institutions, several strategies can be

adopted. Firstly, institutions should focus on fostering a culture that supports and encourages adaptability, innovation, and continuous learning. This can be achieved by promoting open communication, collaboration, and knowledge sharing among leaders and employees. Institutions should also provide resources and opportunities for leaders to engage in professional development activities that enhance their adaptability and leadership skills. By creating a culture that values adaptability and continuous learning, institutions can empower their leaders to navigate the complex challenges of the online and distance learning environment and drive positive change. Secondly, institutions should prioritize the selection and development of leaders who exhibit transformational leadership qualities, such as inspirational motivation, intellectual stimulation, and individualized consideration. These leaders should be able to empower their followers, encourage creativity, and provide support for personal and professional growth. Institutions can organize leadership development programs that focus on building these competencies and fostering a strong sense of self-efficacy among leaders. By investing in the development of transformational leaders, institutions can create a positive and supportive environment that enables leaders to thrive and perform at their best. Thirdly, institutions should recognize the crucial role of self-efficacy in mediating the relationship between organizational culture, leadership style, adaptability, and leadership performance. Strategies to enhance self-efficacy may include providing constructive feedback, setting achievable goals, and celebrating successes. Institutions should also create an environment that supports risk-taking, learning from failures, and continuous improvement. By focusing on building self-efficacy among leaders, institutions can empower them to persist in the face of challenges, set ambitious goals, and demonstrate the adaptability required for effective leadership in the online and distance learning context. Furthermore, institutions should adopt a holistic approach that integrates these strategies and aligns them with the institution's overall mission and goals. This may involve developing a comprehensive leadership development plan that encompasses organizational culture, leadership style, adaptability, and self-efficacy enhancement. Regular evaluation and adjustment of these strategies based on feedback and changing needs can ensure their effectiveness and relevance over time. By implementing these strategies, Open Online Flexible Distance Learning Higher Education Institutions can create a culture that values adaptability, fosters effective leadership and empowers leaders to perform at their best, with self-efficacy serving as a key mediator in this process. This holistic approach to organizational culture, leadership development, and self-efficacy enhancement can lead to improved institutional outcomes and better serve the needs of students, faculty, and staff in the dynamic higher education landscape.

Theoretical Implications

The Social Cognitive Theory (SCT) provides a robust theoretical foundation to underpin the research on the relationship between organizational culture, leadership style, adaptability, and a leader's performance with a leader's self-efficacy as a mediator in higher education institutions. At the core of SCT is the concept of reciprocal determinism, which posits that an individual's behavior, personal factors (such as beliefs and self-efficacy), and the environment interact and influence each other bidirectionally. This aligns well with the focus of the proposed study, as it suggests that a leader's self-efficacy beliefs can shape their behavior and performance, while also being influenced by the organizational culture and leadership style within the higher education institution. SCT emphasizes the role of self-efficacy, which refers to an individual's belief in their capabilities to execute a course of action and achieve desired

outcomes. Leaders with high self-efficacy are more likely to persist in the face of challenges, set ambitious goals, and demonstrate adaptability - all of which are crucial for effective leadership in the dynamic higher education landscape. Furthermore, SCT highlights the importance of observational learning, where individuals acquire new behaviors by observing others. This suggests that the leadership style and behaviors modeled within the organization can influence the self-efficacy and performance of other leaders. By grounding the proposed study in the theoretical framework of SCT, researchers can gain a deeper understanding of the complex interplay between the key variables and their impact on leader performance in higher education institutions.

Practical Implications

The practical implications of the study on the relationship between organizational culture, leadership style, adaptability, and leader's performance with a leader's self-efficacy as a mediator in higher education institutions are significant for institutional leaders and decision-makers. Firstly, the findings emphasize the importance of fostering a culture that values adaptability, innovation, and continuous learning within higher education institutions. Institutions can implement strategies to promote open communication, collaboration, and knowledge sharing among leaders and employees to cultivate a culture that supports adaptability and encourages creativity. Secondly, the study underscores the significance of selecting and developing leaders with transformational leadership qualities, such as inspirational motivation and individualized consideration. Institutions can prioritize leadership development programs that focus on building these competencies and fostering a strong sense of self-efficacy among leaders to empower them to lead effectively in the online and distance learning environment. Thirdly, the study highlights the critical role of self-efficacy in mediating the relationship between organizational culture, leadership style, adaptability, and leader performance. Institutions can implement strategies to enhance self-efficacy among leaders, such as providing constructive feedback, setting achievable goals, and creating an environment that supports risk-taking and continuous improvement. By focusing on these practical implications, higher education institutions can enhance leadership effectiveness, drive organizational performance, and better meet the evolving needs of students, faculty, and staff in the dynamic higher education landscape.

Contextual Implications

The contextual implications of the study on the relationship between organizational culture, leadership style, adaptability, and a leader's performance with a leader's self-efficacy as a mediator are particularly relevant for open online flexible distance learning higher education institutions. These institutions operate in a unique context that presents both opportunities and challenges for leaders. On one hand, the online and distance learning environment offers greater flexibility, accessibility, and scalability, allowing institutions to reach a wider audience and provide educational opportunities to students who may not have access to traditional on-campus programs. This context requires leaders to be highly adaptable, innovative, and technologically savvy to navigate the rapidly evolving landscape of online education. On the other hand, the online and distance learning context also presents challenges related to student engagement, faculty support, and institutional culture. Leaders in these institutions must be skilled in fostering a sense of community and connection among geographically dispersed students and faculty, while also ensuring the quality and rigor of online course offerings. Additionally, building a strong organizational culture that supports adaptability and

innovation can be more challenging in a virtual environment. The findings of this study provide valuable insights for leaders in open online flexible distance-learning higher education institutions. By prioritizing the development of transformational leadership qualities, fostering a culture of adaptability and continuous learning, and enhancing self-efficacy among leaders, these institutions can better navigate the unique challenges of the online and distance learning context and drive positive outcomes for students, faculty, and the institution as a whole.

Suggestions for Future Study

Future studies can build upon the findings of this research by exploring the following suggestions: investigating the impact of organizational culture on leader self-efficacy in different contexts, such as traditional on-campus institutions or other types of organizations; examining the relationship between leader self-efficacy and other leadership outcomes, such as job satisfaction, burnout, or turnover intentions; exploring the role of leader self-efficacy in mediating the relationship between organizational culture and other leadership outcomes, such as team performance or organizational effectiveness; investigating the impact of leader self-efficacy on the development of transformational leadership qualities, such as inspirational motivation and individualized consideration; and examining the relationship between leader self-efficacy and the use of technology in leadership roles, such as the adoption of digital tools or the use of data analytics. By exploring these suggestions, future studies can provide a more comprehensive understanding of the relationship between leader self-efficacy and leadership outcomes, and inform the development of effective leadership strategies in various contexts.

Conclusion

The findings of this study highlight the critical role of organizational culture, leadership style, adaptability, and leader self-efficacy in driving leadership performance in open online flexible distance learning higher education institutions. The results emphasize the importance of fostering a culture that supports adaptability and innovation, developing leaders with transformational leadership qualities, and enhancing self-efficacy among leaders. By implementing strategies that align with these key factors, institutions can create an environment that empowers leaders to perform at their best and drive positive outcomes for students, faculty, and the institution as a whole. The theoretical implications of this study are grounded in Social Cognitive Theory, which provides a robust framework for understanding the complex interplay between individual beliefs, behaviors, and environmental factors. The practical implications offer valuable insights for institutional leaders and decision-makers, while the contextual implications highlight the unique challenges and opportunities presented by the online and distance learning environment. Future studies can build upon these findings by exploring the relationship between leader self-efficacy and other leadership outcomes, as well as the impact of organizational culture and technology on leadership effectiveness in various contexts.

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