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Better Together, Stronger Results: Unveiling Collaborative Educational Leadership in Open, Distance, and Digital Education Higher Institutions

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Abstract

This study highlights the critical role of collaborative educational leadership in enhancing the effectiveness of open, distance, and digital higher education institutions. As these institutions navigate rapidly evolving digital environments, fostering a culture of collaboration becomes vital for improving stakeholder engagement, innovation, and organizational performance. The primary aim of this research was to examine the direct and indirect effects of shared leadership practices, interpersonal trust, and perceived mutual benefits on collaborative educational leadership, with psychological empowerment serving as a mediator. Data was collected through a structured survey distributed via email, with a purposive sampling technique. Out of 465 distributed questionnaires, 313 valid responses were analyzed after data screening. The study employed structural equation modeling (SEM) using SmartPLS 4 to test the hypotheses. Results indicated that psychological empowerment significantly mediates the influence of perceived mutual benefits and trust on collaborative leadership, while shared leadership practices alone did not show a significant direct effect. The findings suggest that fostering empowerment and mutual benefits enhances collaborative efforts, although building systematic trust and implementing shared leadership require strategic support. For future research, longitudinal designs, qualitative insights, and exploration of cultural or contextual factors are recommended to deepen understanding. Practically, institutions should focus on empowering staff, promoting mutual benefits, and strengthening trust through transparent communication and participative decision-making. Overall, the study contributes to the theoretical understanding of collaborative leadership by emphasizing mediated pathways and offers valuable implications for policymakers and practitioners striving to foster collaborative, innovative, and resilient higher education environments in the digital age.

Keywords: Shared Leadership Practices, Interpersonal Trust, Perceived Mutual Benefits, Psychological Empowerment, Collaborative Educational Leadership

Introduction

Effective leadership that fosters collaboration is essential in Open, Distance, and Digital Education (ODDE) higher education institutions, given the unique challenges and opportunities arising from their flexible and decentralized structures (Ukskoski & Lerkkanen,

2024). These institutions serve diverse, geographically dispersed student populations, often lacking face-to-face interaction, which makes distributed leadership models crucial for fostering innovation, enhancing decision-making, and promoting a shared vision for quality education (Raharjo et al., 2024). The emphasis on participatory leadership approaches to accommodate various stakeholders, including students from different cultural backgrounds, is increasingly recognized as vital (Khofi, 2024). Globally, ODDE higher education institutions are experiencing several trends in leadership practices (Intaratat et al., 2024). The ongoing integration of digital technologies calls for more distributed leadership structures that leverage digital tools for coordination and communication (Cherniavska et al., 2023). As digital transformation progresses, there is a heightened focus on multi-form professional development of leaders to foster adaptability and innovation (Hanhimäki et al., 2024). However, current issues such as siloed organizational structures, resistance to change, and uneven technological infrastructure pose significant challenges to effective collaboration (Xu & Lu, 2024). Additionally, the reliance on technology sometimes hampers the development of trust and interpersonal relationships, which are foundational for successful collaboration (Mufid & Radito, 2024). Research gaps persist regarding the contextual and cultural factors influencing leadership practices in ODDE settings. While some studies focus on traditional institutions, there remains limited empirical evidence on how leadership functions in fully digital or hybrid learning environments (Ruben & Lederman, 2023). The impact of collaboration on stakeholder engagement, faculty development, and institutional innovation in these environments is underexplored (Anasrul & Sirozi, 2024). Moreover, strategies to cultivate trust and shared vision among remote stakeholders need further investigation (Mufid & Radito, 2024). A primary challenge in these settings is establishing and maintaining effective communication and trust among dispersed stakeholders (Raharjo et al., 2024). Organizational structures often lack clarity in leadership roles, leading to ambiguity and fragmented efforts, which impede alignment and cohesive decision-making (Ruben & Lederman, 2023). This research is significant for policymakers, higher education institutions, and administrative leaders. Understanding effective leadership practices tailored to open and digital environments can foster collaboration across dispersed units, improve organizational performance, and enhance stakeholder engagement (Cherniavska et al., 2023). For ODDE institutions, these insights can facilitate improved student outcomes and innovation, supporting the sustainable development of open higher education systems (Ukskoski & Lerkkanen, 2024). Overall, the study underscores the importance of adaptable, inclusive leadership models capable of navigating the complexities of digital transformation and decentralization, ultimately contributing to the advancement of open education worldwide (Moore et al., 2023; Aryani & Haryadi, 2023). This study aims to assess the direct and indirect relationship between shared leadership practices, interpersonal trust, and perceived mutual benefit, and collaborative educational leadership with psychological empowerment as a mediator in Open, Distance, and Digital Education (ODDE) higher education institutions.

Literature Review

Underpinning Theories

The combination of Distributed Leadership Theory (DLT) and Social Exchange Theory (SET) provides a comprehensive framework for understanding the dynamics among Shared Leadership Practices, Interpersonal Trust, Perceived Mutual Benefit, and Psychological Empowerment in enhancing Collaborative Educational Leadership. DLT posits that leadership is not a function of individual action, but a collaborative endeavor spread across multiple

stakeholders within an organization (Spillane, 2006). This theory supports the idea that Shared Leadership Practices contribute to a more robust collaborative environment. By distributing leadership tasks, educational institutions harness the collective expertise and strengths of their members, which is crucial for fostering a collaborative culture. SET, introduced by Blau (1964), further complements this framework by offering insights into the relational dynamics that underpin successful collaboration. It suggests that Interpersonal Trust and Perceived Mutual Benefit are fundamental outcomes of effective social exchanges within organizations. Trust facilitates open communication and reciprocal interactions, while mutual benefit ensures that all parties view the collaboration as advantageous. The mediating role of Psychological Empowerment is crucial in this context. Empowerment, characterized by feelings of competence, autonomy, and impact, enhances individuals' motivation and engagement, acting as a bridge that translates shared leadership and reciprocal relationships into effective collaborative leadership (Thomas & Velthouse, 1990). By integrating DLT and SET, the proposed model captures the complex interplay between structural, relational, and psychological elements, providing a holistic view of how these variables interact to influence Collaborative Educational Leadership. This combination not only underscores the importance of distributed leadership structures and trust-based exchanges but also highlights empowerment as a key driver of collaborative success.

Relationship between Interpersonal Trust, Psychological Empowerment & Collaborative Educational Leadership

The relationship between interpersonal trust, psychological empowerment, and collaborative educational leadership is fundamental to creating an effective and cohesive leadership environment. Interpersonal trust acts as the foundation for successful collaboration, fostering open communication, mutual respect, and a sense of safety among team members (Yalçın et al., 2025). When trust is established, stakeholders feel confident sharing ideas, taking risks, and engaging in honest dialogue, which enhances overall teamwork. Psychological empowerment builds upon this trust by giving individuals a sense of control, competence, and purpose in their roles (Berhanu, 2025). When educators and staff feel empowered, they are more motivated, committed, and willing to participate actively in leadership processes (Mohamad & Osman, 2025). Empowered individuals tend to take more initiative, demonstrate greater resilience, and contribute positively to a shared vision for the organization (Qu et al., 2024). The interplay between trust and empowerment creates a virtuous cycle; trust encourages empowerment, and empowered individuals are more likely to grow and reinforce trust within the team. Together, they facilitate a collaborative culture where stakeholders are engaged, motivated, and committed to achieving common goals (Zhang et al., 2024). This synergy ultimately strengthens the effectiveness of educational leadership, improves decision-making, and cultivates an environment that supports continuous growth, innovation, and inclusivity within the organization (Tamasevicius et al., 2025). Therefore, the following hypotheses were proposed for this study:

H1: There is a relationship between interpersonal trust and collaborative educational leadership in Open, Distance, and Digital Education (ODDE) higher institutions.

H2: There is a relationship between interpersonal trust and psychological empowerment towards collaborative educational leadership in Open, Distance, and Digital Education (ODDE) higher institutions.

H3: There is a mediating effect of psychological empowerment on the relationship between interpersonal trust and collaborative and educational leadership in Open, Distance, and Digital Education (ODDE) higher institutions.

Relationship between Perceived Mutual Benefits, Psychological Empowerment & Collaborative Educational Leadership

The relationship between perceived mutual benefits, psychological empowerment, and collaborative educational leadership is essential for fostering meaningful engagement and effective teamwork. When stakeholders recognize tangible and intangible benefits from their involvement in leadership activities, such as opportunities for professional growth, shared success, or organizational recognition, they are more likely to feel motivated and committed (Vu et al., 2025). These perceptions of benefits deepen their emotional investment and reinforce their willingness to contribute actively within the leadership framework (Nguyen et al., 2025). Psychological empowerment further enhances this dynamic by instilling a sense of competence, autonomy, and purpose among individuals involved in leadership processes (Wang et al., 2024). When people believe their efforts make a difference and that they have the authority to influence outcomes, their confidence and motivation increase significantly. This empowerment encourages proactive participation, innovation, and a shared sense of responsibility, which are vital for collaborative success (Quines & Maguan, 2025). The perception of benefits amplifies psychological empowerment, creating a positive cycle where motivated, empowered individuals actively participate and lead initiatives (Kyaambade et al., 2025). This symbiotic relationship enhances the overall effectiveness of collaborative educational leadership by fostering an environment where stakeholders feel valued, capable, and motivated to work together toward common goals. The resulting synergy promotes a more engaged, cohesive, and resilient educational community (Cleary et al., 2023). Thus, the following hypotheses were proposed for this study:

H4: There is a relationship between perceived mutual benefits and collaborative educational leadership in Open, Distance, and Digital Education (ODDE) higher institutions.

H5: There is a relationship between perceived mutual benefits and psychological empowerment towards collaborative educational leadership in Open, Distance, and Digital Education (ODDE) higher institutions.

H6: There is a mediating effect of psychological empowerment on the relationship between perceived mutual benefits and collaborative and educationalleadership in Open, Distance, and Digital Education (ODDE) higher institutions.

Relationship between Shared Leadership Practices, Psychological Empowerment & Collaborative Educational Leadership

The relationship between shared leadership practices, psychological empowerment, and collaborative educational leadership is mutually reinforcing and central to creating an effective organizational environment. Shared leadership involves distributing leadership responsibilities across various stakeholders, fostering a culture of collective responsibility and participation (Mansoor et al., 2025). When stakeholders are involved in shared leadership practices, they often develop a stronger sense of ownership and commitment to organizational goals, which boosts their psychological empowerment. This sense of empowerment includes feeling competent, autonomous, and trusted to contribute meaningfully to decision-making processes (Qu et al., 2024). Psychological empowerment

then encourages individuals to take initiative, be innovative, and engage more deeply with collaborative efforts. When people feel trusted and capable, they are more likely to actively participate and support collective leadership initiatives, leading to more cohesive and resilient teams (Zhang et al., 2024). Conversely, when shared leadership practices promote empowerment, they motivate stakeholders to collaborate more openly and effectively, reinforcing the overall leadership structure. Together, shared leadership practices and psychological empowerment create a positive cycle that enhances collaborative educational leadership (Shula & Heystek, 2024). These dynamic fosters an environment where all members feel valued, motivated, and engaged, resulting in more effective decision-making, improved organizational outcomes, and a stronger, more inclusive educational community committed to shared success (Katıtaş et al., 2025). Hence, the following hypotheses were proposed for this study:

H7: There is a relationship between shared leadership practices and collaborative educational leadership in Open, Distance, and Digital Education (ODDE) higher institutions.

H8: There is a relationship between shared leadership practices and psychological empowerment towards collaborative educational leadership in Open, Distance, and Digital Education (ODDE) higher institutions.

H9: There is a relationship between psychological empowerment and collaborativeeducational leadership in Open, Distance, and Digital Education (ODDE) higher institutions.

H10: There is a mediating effect of psychological empowerment on the relationship between shared leadership practices and collaborative and educationalleadership in Open, Distance, and Digital Education (ODDE) higher institutions.

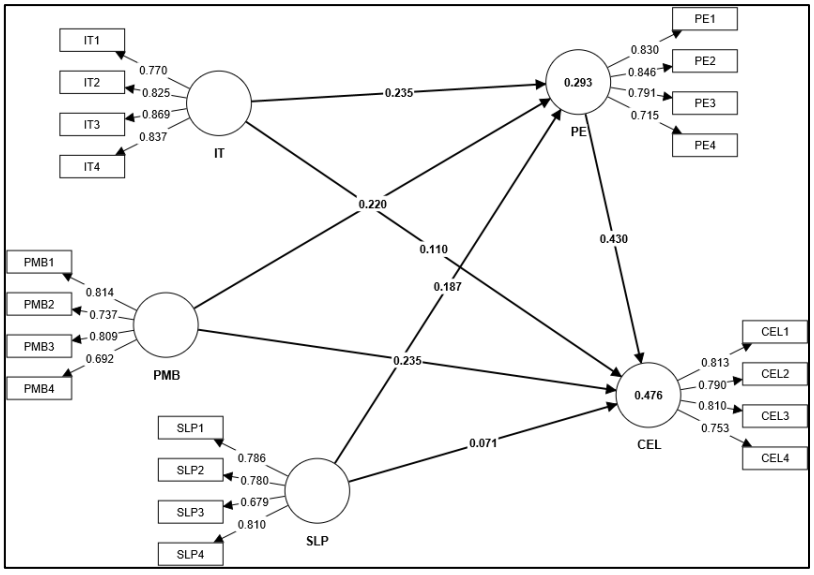

Figure 1: Research Model

Notes: IT=Interpersonal Trust PMB=Perceived Mutual Benefits SLP=Shared Leadership Practices PM=Psychological Empowerment CEL=Collaborative Educational Leadership

Methodology

This research aimed to thoroughly assess both the direct and indirect effects of interpersonal trust, perceived mutual benefits, and shared leadership practices on collaborative

educational leadership, with psychological empowerment serving as a mediator. The study focused on higher education institutions offering open, distance, and digital education. To accomplish this, a survey was conducted to collect primary data, utilizing carefully selected, reliable, and valid measurement tools based on an extensive review of previous literature. The questionnaires were distributed via email to targeted participants through purposive sampling, as a complete sampling frame was not available. A total of 20 observed variables were analyzed, including exogenous variables such as shared leadership practices, adapted from Hulpia et al. (2009) (4 items); interpersonal trust, adapted from Mc Allister (1995) (4 items); and perceived mutual benefits, adapted from Cropanzano & Mitchell (2005) (4 items). Psychological empowerment, based on Spreitzer (1995) (4 items), was identified as the mediating variable, while collaborative educational leadership, drawn from Thomson et al. (2009) (4 items), was the endogenous variable. Participants responded using a five-point Likert scale ranging from strongly disagree to strongly agree. From 465 distributed surveys, 366 valid responses were received, resulting in a response rate of 78.71%, which was sufficient for structural equation modeling (SEM). Of these, 313 responses were suitable for analysis. Data were analyzed using SmartPLS 4 software, recognized for its effectiveness in SEM techniques, following recommendations by Ringle et al. (2022). The software's advanced capabilities facilitated an in-depth examination of the hypotheses and enabled a comprehensive analysis of both measurement and structural models.

Data Analysis

Respondents' Profiles

The table presents the demographic distribution of the survey participants in terms of gender, age, years of service, and position. The majority of respondents are male, accounting for 60.7% (190 individuals), while females comprise 39.3% (123 individuals). Regarding age, the largest group is between 41-50 years old, representing 40.3% (126 individuals), followed by those aged 31-40 years (23.0%) and 51-60 years (20.1%). Participants over 60 years old make up 8.6%. In terms of service years, most respondents have served between 11-15 years (30%) and 16-20 years (28.8%), with smaller proportions having less than 5 years (5.8%) or over 30 years (4.8%). Regarding professional position, 62.3% are academicians, while 37.7% are non-academicians. Overall, the sample includes a diverse group, with a significant concentration of experienced academicians, providing a comprehensive view of the relevant population.

Common Method Bias

The full collinearity assessment presented in Table 1 indicates that the Variance Inflation Factor (VIF) values for all constructs are below the recommended threshold of 3.3, as suggested by Kock and Lynn (2012) and Kock (2015). The highest VIF value observed is 2.035 for interpersonal trust, which indicates that common method bias is unlikely to be a concern in this data set. When VIF values are within this acceptable range, it suggests that multicollinearity does not artificially inflate the relationships among constructs, thereby reducing potential biases that could distort the results. This diagnostic confirms that the study's data and measurements are unlikely to be heavily affected by common method variance, supporting the validity of the findings. Overall, the low VIF values bolster confidence in the study's measurement model and the interpretation of the structural relationships.

Table 1
Full Collinearity (VIF)

	CEL	SLP	IT	PMB	PE
CEL		1.844	1.842	1.753	1.483
SLP	1.592		1.372	1.594	1.579
IT	2.035	1.756		1.734	2.021
PMB	1.684	1.773	1.507		1.777
PE	1.385	1.708	1.707	1.727	

Measurement Model

Based on the data presented in Table 2, the evaluation of construct reliability and validity follows the criteria recommended by Hair et al. (2019), which emphasize the importance of high loadings, Cronbach's alpha (CA), composite reliability (CR), and average variance extracted (AVE). All items loaded strongly on their respective constructs, with loadings ranging from 0.679 to 0.869, exceeding the minimum threshold of 0.70, indicating good item validity. The Cronbach's alpha values for all constructs are above the accepted cutoff of 0.70, with values ranging from 0.713 to 0.846, demonstrating high internal consistency. Similarly, the composite reliability scores are well above 0.70, spanning from 0.761 to 0.872, which confirms that the constructs demonstrate sufficient reliability. The AVE values for each construct also surpass the minimum of 0.50, with all values exceeding 0.585, evidencing that the constructs explain a substantial amount of variance relative to measurement error. Collectively, these results suggest that the constructs possess both high reliability and convergent validity, reinforcing confidence in the measurement model's integrity and indicating that the constructs are measured accurately and consistently in line with established standards.

Table 2
Construct Reliability and Validity & Items Loadings

Constructs	Items	Loadings	CA	CR	AVE
Collaborative	CEL1	0.813	0.802	0.811	0.627
Educational	CEL2	0.790			
Leadership	CEL3	0.810			
	CEL4	0.753			
Interpersonal	IT1	0.770	0.846	0.872	0.682
Truct	IT2	0.825			
	IT3	0.869			
	IT4	0.837			
Psychological	PE1	0.830	0.808	0.817	0.636
Engagement	PE2	0.846			
	PE3	0.791			
	PE4	0.715			
Perceived	PMB1	0.814	0.763	0.761	0.585
Mutual	PMB2	0.737			
Benefits	PMB3	0.809			
	PMB4	0.692			
Shared	SLP1	0.786	0.763	0.766	0.586
Leadership	SLP2	0.780			
Practices	SLP3	0.679			
	SLP4	0.810			

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

Table 3
Hetrotrait-Monotrait (HTMT) Ratios)

	CEL	IT	PE	PMB
IT	0.589			
PE	0.758	0.565		
PMB	0.655	0.754	0.555	
SLP	0.534	0.727	0.533	0.584

Structural Model

This investigation analyzed the structural model using the procedures recommended by Hair et al. (2017), emphasizing the examination of pathway coefficients (β) and the coefficients of determination (R^2). Utilizing a Partial Least Squares (PLS) methodology, the analysis involved 5,000 bootstrap samples to evaluate the significance of the path coefficients. The findings from the hypothesis testing are summarized in Table 4, which presents the beta values, t-statistics, and p-values, providing meaningful insights into the magnitude and significance of the relationships among the variables. The hypothesis testing results reveal mixed findings regarding the proposed relationships. *H1* posited that interpersonal trust (IT) directly influences collaborative educational leadership (CEL); however, with a beta of 0.110, a t-statistic of 1.709, and a p-value of 0.088, this effect is not statistically significant at the 0.05 level, leading to the rejection of *H1*. Conversely, *H2* hypothesized that IT influences psychological empowerment (PE); with a beta of 0.235, a t-statistic of 3.182, and a p-value of 0.001, this effect is significant, and *H2* is accepted, indicating that trust positively impacts empowerment. *H3* examined whether IT indirectly affects CEL through PE; this mediation is supported by a beta of 0.101, a t-statistic of 2.917, and a p-value of 0.004, resulting in the acceptance of *H3*. Similarly, *H4* proposed that perceived mutual benefits (PMB) directly influence CEL; with a beta of 0.235, t-value of 4.162, and p-value of 0.000, this is a significant effect, and H4 is accepted. H5, suggesting PMB influences PE, is also supported with a beta of 0.220, t-value of 3.495, and p-value of 0.000; thus, *H5* is accepted. Further, *H6* found that PMB affects CEL through PE, with a beta of 0.095, t-value of 3.364, and p-value of 0.001, confirming the mediation and leading to the acceptance of *H6*. *H7* examined whether shared leadership practices (SLP) directly influence CEL, but with a beta of 0.071, t-value of 1.194, and a p-value of 0.232, this was not significant, resulting in the rejection of *H7*. However, *H8* proposed that SLP impacts PE; the effect is significant with a beta of 0.187, t-value of 2.944, and p-value of 0.003, so *H8* is accepted. *H9* tested the direct influence of PE on CEL, showing a strong, significant effect with a beta of 0.430, t-value of 8.369, and p-value of 0.000, leading to the acceptance of *H9*. Lastly, *H10* considered the mediation effect of SLP on the relationship between SLP and CEL; with a beta of 0.08, t-value of 2.652, and a p-value of 0.008, this indirect effect is significant, and *H10* is accepted. Overall, the results indicate strong direct and mediated effects of trust, perceived mutual benefits, and psychological empowerment on collaborative educational leadership, while shared leadership practices show a significant indirect effect through empowerment.

Table 4
Hypothesis Testing Results

Hypotheses	Beta	T-statistics	P-values	2.50%	97.50%	Decision
H1: IT -> CEL	0.110	1.709	0.088	-0.016	0.236	*Rejected*
H2: IT -> PE	0.235	3.182	0.001	0.089	0.376	*Accepted*
H3: IT -> PE -> CEL	0.101	2.917	0.004	0.038	0.174	*Accepted*
H4: PMB -> CEL	0.235	4.162	0.000	0.120	0.341	*Accepted*
H5: PMB -> PE	0.220	3.495	0.000	0.081	0.333	*Accepted*
H6: PMB -> PE -> CEL	0.095	3.364	0.001	0.039	0.149	*Accepted*
H7: SLP -> CEL	0.071	1.194	0.232	-0.044	0.186	*Rejected*
H8: SLP -> PE	0.187	2.944	0.003	0.061	0.306	*Accepted*
H9: PE -> CEL	0.430	8.369	0.000	0.323	0.528	*Accepted*
H10: SLP -> PE -> CEL	0.08	2.652	0.008	0.026	0.144	*Accepted*

Note: Significant at p<0.05

Effect Sizes (f^2)

Based on Cohen's (1992) guidelines, the effect sizes (f^2) in Table 5 indicate small to medium effects. The effect of interpersonal trust (IT) on collaborative educational leadership (CEL) is very small ($f^2 = 0.011$) and small ($f^2 = 0.038$) on psychological empowerment (PE). Perceived mutual benefits (PMB) have a small effect on CEL ($f^2 = 0.061$) and PE ($f^2 = 0.041$). Shared leadership practices (SLP) show minimal effects on both CEL ($f^2 = 0.006$) and PE ($f^2 = 0.031$).

Table 5
Effect Sizes (f^2)

	CEL	PE
IT	0.011	0.038
PE	0.249	
PMB	0.061	0.041
SLP	0.006	0.031

PLSpredicts & Cross-Validated Predictive Ability Test (CVPAT)

Following the guidelines by Shmueli et al. (2016, 2019), the PLSpredict analysis shows that the PLS-SEM predictions generally outperform the Linear Model benchmarks, as the PLS-RMSE values are consistently lower than the LM-RMSE values across all items. Specifically, all eight items exhibit smaller PLS-RMSEs compared to LM-RMSEs, with the differences ranging from 0.004 to -0.018. This indicates that the PLS model provides more accurate and reliable predictions than the linear benchmark, reinforcing its suitability for predictive analysis within this study. The results support the model's predictive validity and robustness. The CVPAT results, following recommendations by Hair et al. (2022) and Liengaard et al. (2021), demonstrate significant predictive ability for both constructs and the overall model, as indicated by negative average loss differences and highly significant t-values (CEL: t=5.220, p=0.000; PE: t=4.203, p=0.000; overall: t=5.471, p=0.000). The negative loss differences suggest the model's predictions are more accurate than benchmarks, confirming its strong predictive capacity. The highly significant p-values indicate that the model's predictive performance is not due to chance, establishing the model's robustness and reliability in forecasting the constructs.

Table 6
PLSpredicts

	Q^2predict	PLS-RMSE	LM-RMSE	PLS-LM
CEL1	0.283	0.618	0.629	-0.011
CEL2	0.189	0.629	0.640	-0.011
CEL3	0.216	0.682	0.686	-0.004
CEL4	0.115	0.738	0.743	-0.005
PE1	0.236	0.625	0.629	-0.004
PE2	0.195	0.624	0.635	-0.011
PE3	0.117	0.683	0.688	-0.005
PE4	0.137	0.696	0.714	-0.018

Table 7
Cross-Validated Predictive Ability Test (CVPAT)

	Average loss difference	t value	p value
CEL	-0.110	5.220	0.000
PE	-0.088	4.203	0.000
Overall	-0.099	5.471	0.000

Importance-Performance Map Analysis (IPMA)

The IPMA results, as outlined by Ringle and Sarstedt (2016) and Hair et al. (2018), indicate that psychological empowerment (PE) holds the highest importance (0.430) but has a relatively moderate performance score (61.468), highlighting an area for potential improvement. Interpersonal trust (IT) shows the lowest importance (0.211) with a higher performance score (67.093), suggesting that efforts could better focus on enhancing the importance of trust in fostering collaborative educational leadership. To improve the construct with the lowest importance and performance trust strategies might include promoting transparent communication, building stronger relationships among stakeholders, and increasing trustworthiness through consistent and fair practices. Elevating trust's importance could lead to more genuine collaborations, improving overall leadership effectiveness. Additionally, focusing on boosting the performance of PE through targeted capacity-building initiatives can further enhance its influence on collaborative leadership efforts.

Table 8
Importance-Performance Map Analysis (IPMA)

	Importance	Performance
IT	0.211	67.093
PE	0.430	61.468
PMB	0.330	66.736
SLP	0.151	66.597

Discussion & Conclusion

Discussion

The findings of this study underscore the vital importance of fostering collaborative educational leadership in open, distance, and digital education institutions to effectively enhance institutional performance and stakeholder engagement. The results clearly show

that psychological empowerment (PE) acts as a significant mediator between various antecedents, such as shared leadership practices, interpersonal trust, and perceived mutual benefits, and the overall construct of collaborative educational leadership (CEL). The pathway coefficient (β=0.430) for the influence of psychological empowerment on CEL indicates a strong effect, confirming that when stakeholders feel empowered, they are more likely to participate actively and take on leadership roles, thus fostering a culture of collaboration and shared responsibility (Kyambade et al., 2025). This aligns with previous research that emphasizes the importance of empowerment in driving engagement and innovative practices within educational organizations. Furthermore, perceived mutual benefits (β=0.235) directly influence collaborative leadership, highlighting the importance of aligning individual and organizational goals to motivate stakeholders effectively. When stakeholders perceive that their contributions result in mutual gains, such as professional growth or organizational success, their willingness to collaborate increases significantly (Mansoor et al., 2025). However, shared leadership practices (β=0.071) did not show a significant direct effect on collaborative leadership. This may be due to a lack of proper implementation, clarity, or support in the distribution of leadership roles within the organization. Merely advocating shared leadership without embedding it within the organizational culture and systems may not lead to immediate improvements, which is consistent with existing literature emphasizing the necessity of organizational readiness and systemic support for participative leadership models (Moore et al., 2023). Similarly, interpersonal trust (β=0.110) did not significantly influence collaborative leadership directly, possibly because trust functions more as an enabler rather than a direct driver. Its impact is likely mediated through psychological empowerment and other variables. Trust fosters an environment conducive to open communication and risk-taking, but without accompanying empowerment initiatives and mutual benefit perceptions, its effect on collaboration may remain limited. To enhance collaborative leadership, institutions should prioritize capacity-building initiatives focused on increasing psychological empowerment by creating participative environments and offering targeted professional development (Quines & Maguan, 2025). Furthermore, emphasizing mutual benefits can help synchronize individual and collective goals, motivating stakeholders toward shared leadership goals. In addition, building trust should involve increasing transparency, consistent communication, and relationship-building activities. These strategies can indirectly support and strengthen the influence of trust on collaboration. By addressing these key areas and integrating systemic support for shared practices, open, distance, and digital education institutions can create an environment where collaborative educational leadership flourishes, leading to improved stakeholder satisfaction, innovative practices, and overall institutional effectiveness (Aryani & Haryadi, 2023). Ultimately, adopting a comprehensive approach that emphasizes empowerment, mutual benefit, and trust can significantly advance the strategic leadership capacity of these institutions, ensuring sustainable growth and global competitiveness.

Theoretical Implications

The present study offers significant theoretical contributions to the understanding of collaborative educational leadership, especially within the context of open, distance, and digital higher education institutions, thereby extending existing frameworks grounded in shared leadership, trust, and empowerment theories. Notably, the findings reinforce the centrality of psychological empowerment as a mediating mechanism, aligning with its conceptualization as a crucial driver for enhancing collective leadership processes. The study

also highlights the nuanced roles of perceived mutual benefits and interpersonal trust, expanding upon previous research by elucidating their indirect influences mediated through empowerment, thus refining the theoretical understanding of how social and psychological variables interplay to foster effective collaboration. These insights build upon foundational concepts from Distributed Leadership Theory (Spillane, 2006), which emphasizes the dissemination and sharing of leadership roles across multiple stakeholders, and Social Exchange Theory (Blau, 1964), which explains the role of reciprocal relationships and trust as essential mediators in organizational dynamics. Importantly, the findings suggest that shared leadership practices may require a more nuanced theoretical framing, as their non-significant direct impact on collaborative leadership indicates the necessity for more systemic and cultural support, pushing the boundaries of current shared leadership theories. This shapes a more holistic view that emphasizes multidimensional pathways, both direct and mediated, through which leadership, trust, and perceived benefits interact, aligning with recent advances in organizational and educational leadership theory. Consequently, this study advocates for a refined theoretical model that integrates empowerment as a core mediator and underscores the importance of mutual benefit perceptions, thereby offering a more dynamic, interconnected perspective on the variables that underpin effective collaborative leadership, which can serve as a foundation for future empirical validation and conceptual refinement.

Practical Implications

The findings of this study have several practical implications for open, distance, and digital education higher institutions seeking to enhance collaborative leadership. First, institutions should prioritize fostering psychological empowerment among staff and faculty by creating participative decision-making processes, providing opportunities for professional development, and encouraging autonomy in their roles. Empowered personnel are more likely to engage actively in collaborative efforts, driving innovation and improving organizational outcomes. Second, building and strengthening perceived mutual benefits can motivate stakeholders to participate more fully; institutions can do this by clearly communicating shared goals and recognizing individual contributions, which fosters a culture of cooperation and mutual gain. Third, enhancing interpersonal trust remains essential; transparent communication, consistency, and fairness in leadership practices will build trust among members, thereby creating a supportive environment conducive to collaboration. Additionally, while shared leadership practices alone may not significantly impact collaborative outcomes without systemic and cultural support, integrating these practices with strong empowerment initiatives and trust-building activities can improve their effectiveness. Overall, adopting a holistic approach that emphasizes empowerment, mutual benefits, and trust can lead to more engaged stakeholders, a cohesive culture of collaboration, and improved organizational performance. These strategies will help institutions adapt to evolving digital environments, foster innovation, and ensure sustainable growth in the increasingly competitive landscape of open and distance higher education.

Suggestions for Future Studies

Future studies can build on the findings by exploring the longitudinal effects of collaborative leadership practices, psychological empowerment, and trust over time, providing deeper insights into their evolving impact on organizational performance. Researchers might also examine cultural, technological, and organizational specificities that influence the

effectiveness of these variables in different contexts of open, distance, and digital higher education institutions. Additionally, future studies could investigate other potential mediators or moderators, such as organizational culture or leadership styles, that might further explain the dynamics of collaborative leadership. Further research could also focus on intervention-based studies, testing the effectiveness of specific strategies aimed at enhancing empowerment, trust, and mutual benefits. Exploring stakeholder perceptions and experiences through qualitative approaches can also provide a richer understanding of the underlying mechanisms and barriers to effective collaboration. Overall, these avenues will contribute to a more comprehensive understanding of how best to foster collaborative leadership in increasingly digital and diverse educational settings.

Conclusion

This study underscores the critical importance of psychological empowerment, perceived mutual benefits, and trust in fostering effective collaborative educational leadership within open, distance, and digital higher education institutions. The findings reveal that empowerment acts as a vital mediator, significantly enhancing the impact of shared practices and relational trust on collaborative outcomes. While shared leadership practices showed limited direct influence, their effectiveness can be amplified when integrated with empowerment and trust-building strategies. Overall, a holistic approach that emphasizes empowerment, mutual benefit, and trust is essential to cultivate a culture of collaboration, innovation, and engagement among stakeholders. Implementing these insights can help institutions adapt to digital advancements, foster a cohesive organizational environment, and improve overall performance. Moving forward, strategic focus on these variables can facilitate sustainable growth and position open, distance, and digital education institutions as leaders in delivering quality, collaborative education in an increasingly competitive global landscape.

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