

Assessing the Drivers of Educational Success: Administrative Capacity, Enabling Conditions, and the Localization of SDG 4 (Quality Education)

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Abstract

The translation of global education goals into local realities remains a critical challenge. This study assesses the relative predictive influence of Administrative Capacity (internal resources) and Enabling Conditions (external environment) on the localization of SDG 4 (Quality Education). Utilizing a quantitative cross-sectional design, data were collected from 500 Thai educational administrators. Partial Least Squares Structural Equation Modeling (PLS-SEM) analysis revealed that both factors are significant positive predictors ($p < .001$), but Enabling Conditions ($\beta = 0.495$) had a substantially greater predictive impact than Administrative Capacity ($\beta = 0.342$). These findings indicate that successful localization is driven more by the external environment, specifically, political will and policy coherence, than by internal resources alone. This suggests that policymakers must prioritize institutional reforms to accelerate the effective achievement of quality education.

Keywords: *SDG 4 Quality Education, Administrative Capacity, Enabling Conditions.*

Introduction

The 2030 Agenda for Sustainable Development presents a universal mandate for global transformation, with Sustainable Development Goal 4 (SDG 4) ensuring inclusive and equitable quality education, widely recognized as its cornerstone (UNESCO, 2022). Education is not merely one of 17 goals; it is the “force multiplier” that enables the achievement of all other SDGs, from poverty reduction and health to economic growth and climate action (Almeida & Morais, 2024). Consequently, the effective implementation of SDG 4 is of paramount importance to national development.

Despite this global consensus, translating SDG 4 from a high-level international commitment into tangible, local classroom realities remains a formidable challenge (Read & Benavot, 2023; Vesudevan et al., 2025; Hossain et al., 2025). This “localization” gap, the disparity between national policy aspirations and on-the-ground implementation, is the central problem facing educational systems worldwide. Successful implementation is not automatic; it depends on a complex interplay of local factors (Lochmiller & Hedges, 2017; Kanchanawongpaisan et al., 2024).

The literature suggests that two broad categories of factors are critical. The first is the internal Administrative Capacity (AC) of local governing bodies (e.g., district education offices), encompassing their financial, human, and technological resources (Honig, 2003; Save the Children, 2023; UN-HABITAT, 2024; Read & Benavot, 2023). The second is the external Enabling Conditions (EC), which includes the political, social, and institutional environment that supports or constrains local action (Hoo et al., 2024; Channuwong et al., 2025; Hasnain, 2024; Manteaw et al., 2025).

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While both AC and EC are cited as important, a significant empirical ambiguity persists. The literature lacks quantitative, comparative research that assesses these two drivers simultaneously to determine their relative predictive power (Feng et al., 2024). This persistent ambiguity in the literature is not merely an academic gap; it is a critical blind spot for public policy and investment. In an era of severely limited public budgets, governments and international donors face a high-stakes, zero-sum decision: should they prioritize investing in internal capacity-building (e.g., training administrators, upgrading technology) or in external environment reform (e.g., fixing national policy coherence, building political will)?

To address this critical gap, this study will develop and empirically test a quantitative model using Partial Least Squares Structural Equation Modeling (PLS-SEM). By analyzing data collected from educational administrators, this research aims to systematically quantify the respective predictive influence of both Administrative Capacity and Enabling Conditions on the successful localization of SDG 4. The following sections will review the theoretical literature to build the study's hypotheses, detail the research methodology, present the statistical results, and, finally, discuss the critical policy implications of the findings.

Research Objectives

1. To assess the perceived levels of Administrative Capacity, Enabling Conditions, and SDG 4 Localization Success within the Thai educational administration context.
2. To examine the significance and strength of the predictive relationships between the internal driver (Administrative Capacity) and the external driver (Enabling Conditions) on SDG 4 Localization Success.
3. To develop and empirically test a structural equation model to determine the relative predictive power of Administrative Capacity versus Enabling Conditions in achieving SDG 4 Localization Success.

Literature Review

The Theoretical Challenge: Localization of SDG 4

The concept of "SDG Localization" refers to the process of defining, implementing, and monitoring strategies at the local level to achieve the global, national, and subnational Sustainable Development Goals (Global Taskforce, 2016). In the context of education, localization is critical because the delivery of quality education (SDG 4) is inherently a local function, managed by district offices, municipalities, and school boards (UNESCO, 2022).

However, the literature identifies a persistent "implementation gap" between national policy aspirations and local realities. Read and Benavot (2023) argue that while high-level commitments to SDG 4 are common, translating these commitments into tangible improvements in learning outcomes and equity often falters due to local constraints. Theory suggests that successful policy implementation is not automatic. However, it is a function of two primary drivers: the internal capacity of the implementing agency and the external environment in which it operates (Matland, 1995). This study adopts this dual-driver theoretical lens to examine the localization of SDG 4.

Administrative Capacity: The Internal Driver

Administrative Capacity is defined in public administration theory as the ability of a government entity to manage its human, financial, and technical resources to perform its designated functions effectively (Lodge & Wegrich, 2014; Kenikasahmanworakhun et al., 2025). In the context of educational administration, this capacity is the "engine" that drives policy implementation.

Honig (2019) emphasizes that local educational administrators are not merely policy receivers but active policy shapers. Their ability to implement reforms depends heavily on their Human Resource Capacity (skills, leadership, and training) and Financial Capacity (budgetary sufficiency and stability). Furthermore, in the modern educational landscape, Technological Capacity, the ability to use data systems to monitor student progress and allocate resources, has become a critical component of administrative success (Wu et al., 2015; Chaityaseth, 2024).

The theoretical assumption is straightforward: even with the best intentions, a local administrative body lacking the necessary skills, budget, or systems will fail to operationalize SDG 4 targets. Therefore, we posit that:

H1: Administrative Capacity (internal factors) has a significant positive influence on SDG 4 Localization Success.

Enabling Conditions: The External Driver

While internal capacity enables action, institutional theory suggests that the environment determines the feasibility of that action. Enabling Conditions refer to the external political, social, and institutional factors that support or constrain local administration (Howlett, 2024).

Key among these conditions is Political Will. Hasnain (2024) notes that without strong, visible support from local political leadership, educational initiatives often struggle to secure necessary prioritization against competing local interests. Additionally, Policy Coherence is vital; local administrators require a clear, consistent national policy framework that aligns with SDG 4, rather than fragmented or contradictory directives (OECD, 2021; Read & Benavot, 2023). Finally, Stakeholder Engagement, specifically the support of parents, communities, and teacher unions, creates the social legitimacy required for sustained educational reform (Lochmiller & Hedges, 2017).

The theory posits that even a competent administrative body can be stymied by a hostile or indifferent external environment. Conversely, a supportive environment can amplify the effects of administrative efforts. Therefore, we posit that:

H2: Enabling Conditions (external factors) have a significant positive influence on SDG 4 Localization Success.

Table 1. Operationalization of Constructs and Measurement Items

Latent Construct	Item Code	Observed Variable Label	Description of Measurement Item
Administrative Capacity (AC)	AC1	Financial Capacity	The sufficiency and stability of the local budget allocated for educational materials, infrastructure, and teacher support.
<i>(Internal Driver)</i>	AC2	Human Resource Capacity	The level of competence, professional training, and leadership skills possessed by local educational administrators.
	AC3	Technological Capacity	The availability and effective utilization of digital data systems for student assessment and resource planning.
	AC4	Internal Coordination	The effectiveness of collaboration and communication between different units within the local education office.
Enabling Conditions (EC)	EC1	National Policy Coherence	The clarity and consistency of the Ministry of Education's policies regarding local SDG 4 targets.
<i>(External Driver)</i>	EC2	Political Will	The level of visible priority and public support given to education by local political leadership (e.g., governors, mayors).
	EC3	Stakeholder Engagement	The active involvement and support from parents, community leaders, and local NGOs in school management.

Latent Construct	Item Code	Observed Variable Label	Description of Measurement Item
	EC4	Teacher Support	The willingness and collaboration of local teacher networks or unions in implementing new educational policies.
SDG 4 Localization Success (SDG4LS)	LS1	Equitable Access	The perceived success in ensuring inclusive access to education for all groups, including vulnerable populations (Target 4.1/4.5).
<i>(Dependent Variable)</i>	LS2	Learning Environment	The improvement in safety, inclusivity, and effectiveness of school facilities and learning environments (Target 4.a).
	LS3	Relevant Skills	The effectiveness of schools in providing students with relevant technical and vocational skills for employment (Target 4.4).
	LS4	Teacher Quality	The success in increasing the supply and retention of qualified and trained teachers in the locality (Target 4.c).

2.4 Conceptual Framework

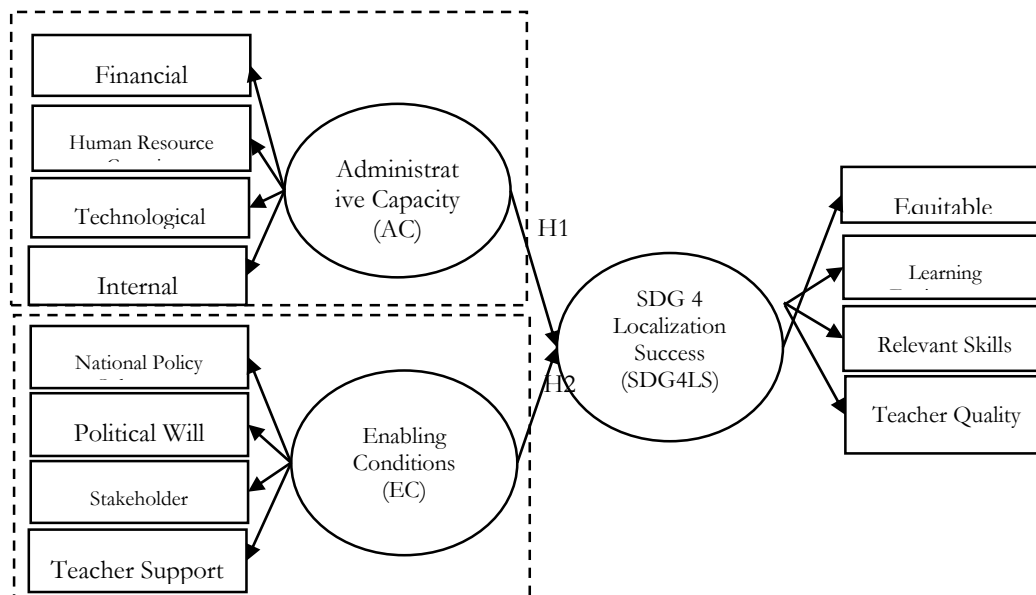


Figure 1: Conceptual Framework

Research Methodology

Research Design

This study employed a quantitative research paradigm utilizing a cross-sectional survey design. This approach was selected because it facilitated the standardized collection of data on perceptions of educational administrators at a single point in time, thereby enabling statistical testing of hypothesized relationships (Creswell, 2014). A deductive approach was adopted, whereby the conceptual framework developed from the literature review was empirically tested against observed data.

The primary analytical technique used was Partial Least Squares Structural Equation Modeling (PLS-SEM). This method was chosen over covariance-based SEM (CB-SEM) for three specific reasons: (1) the study's objective was prediction-oriented (identifying the key drivers of localization success); (2) the model included complex latent constructs; and (3) PLS-SEM offers higher statistical power when analyzing data that may not adhere to strict assumptions of multivariate normality (Hair et al., 2019).

Population and Sample

The target population comprised educational administrators working within local administrative bodies in Thailand (e.g., District Education Offices and Local Administrative Organizations). These individuals were selected as the unit of analysis because they possessed direct oversight of policy implementation, budgeting, and personnel management relevant to SDG 4.

A non-probability purposive sampling technique was utilized. This method ensured that respondents had the requisite professional experience and knowledge to provide valid responses regarding administrative capacity and enabling conditions (Etikan, 2016).

The determination of the minimum sample size was grounded in a rigorous assessment of the model's structural complexity and degrees of freedom (df). With a total of 12 observed indicators (NI = 12) and 26 distinct parameters to be estimated (NP = 26), the model's degrees of freedom were calculated as $df = [NI(NI+1)/2] - NP = [12(13)/2] - 26 = 52$. The resulting positive value ($df = 52$) confirmed that the model was over-identified and statistically solvable. To ensure robustness, this df value was subsequently applied in an a priori power analysis using G*Power 3.1.9.7 (Faul et al., 2009). Utilizing the Chi-square (χ^2) goodness-of-fit test with a medium effect size = 0.3, a significance level of $\alpha = 0.05$, and a high statistical power of $1-\beta = 0.95$, the analysis indicated that a minimum of 486 respondents was required. Consequently, the final sample of $N = 500$ was collected, successfully exceeding the rigorous threshold required for high statistical power and reliable parameter estimates.

Research Instrument and Operationalization

A structured questionnaire was developed as the primary data-collection instrument. The instrument consisted of two sections: (1) demographic profile of the respondents and (2) measurement items for the three latent variables. All constructs were measured using a 5-point Likert scale, ranging from 1 ("Strongly Disagree") to 5 ("Strongly Agree"). To ensure content validity, measurement items were adapted from established scales in the public administration and educational policy literature:

- **Administrative Capacity (AC):** Modeled as a reflective construct with items measuring financial sufficiency, human resource competence, and technological readiness, adapted from Honig (2019) and Lodge and Wegrich (2014).
- **Enabling Conditions (EC):** Modeled as a reflective construct with items measuring political will, policy coherence, and stakeholder engagement, adapted from OECD (2020).
- **SDG 4 Localization Success (SDG4LS):** Modeled as a reflective construct measuring the perceived achievement of equitable access, learning environments, and relevant skills, adapted from UNESCO (2016) benchmarks.

3.4 Data Collection and Reliability Testing

Data were collected via a secure online platform distributed through professional educational administration networks. Prior to full-scale data collection, a pilot study was conducted with 30 administrators (excluded from the final sample) to assess the instrument's clarity and reliability. The pilot results indicated high internal consistency, with Cronbach's Alpha coefficients for all constructs exceeding 0.70.

Data Analysis

Data were analyzed using SmartPLS 4 software following the two-stage assessment procedure recommended by Hair et al. (2021).

1. Assessment of the Measurement Model: The reliability and validity of the constructs were evaluated. Indicator reliability was assessed using factor loadings (>0.708). Internal consistency reliability was assessed using Cronbach's Alpha and Composite Reliability (>0.70). Convergent validity was assessed using the Average Variance Extracted (AVE >0.50). Discriminant validity was assessed using the Heterotrait-Monotrait (HTMT) ratio, with values below the conservative threshold of 0.85 (Henseler et al., 2014).
2. Assessment of the Structural Model: The hypothesized relationships were tested. Collinearity was assessed using the Variance Inflation Factor (VIF) values (<5.0). The explanatory power of the model was assessed using the Coefficient of Determination (R^2) and the predictive relevance using Stone-Geisser's Q^2 . Finally, the significance of the path coefficients was determined using a bootstrapping procedure with 5,000 resamples to generate t -statistics and p -values.

Result

Table 2: Demographics of Respondents

Characteristic	Category	Frequency (n)	Percentage (%)
Gender	Male	220	44.0%
	Female	280	56.0%
Age	30 – 40 years	85	17.0%
	41 – 50 years	215	43.0%
	51 – 60 years	150	30.0%
	Over 60 years	50	10.0%
Education Level	Bachelor's Degree	125	25.0%
	Master's Degree	325	65.0%
	Doctoral Degree	50	10.0%
Current Position	Director/Head of Education Division	110	22.0%
	School Administrator (Principal/Director)	240	48.0%
	Senior Academic/Policy Officer	150	30.0%
Work Experience	Less than 5 years	40	8.0%
	5 – 10 years	110	22.0%
	11 – 20 years	225	45.0%

Characteristic	Category	Frequency (n)	Percentage (%)
	More than 20 years	125	25.0%
Organization Type	District Education Office	260	52.0%
	Local Administrative Organization (LAO)	240	48.0%

Table 2 shows that the respondents possessed high levels of professional qualifications and relevant experience, thereby enhancing the credibility of the data on administrative capacity. A significant majority of respondents (75.0%) held a postgraduate degree (Master's or doctoral). Furthermore, the sample was highly experienced, with 92.0% of respondents having more than 5 years of experience, and the largest cohort (45.0%) having 11-20 years of service.

The distribution of professional roles was well-suited to the study's objectives. Nearly half of the sample (48.0%) consisted of School Administrators (Principals/Directors), while 22.0% were Directors or Heads of Education Divisions. These positions entail direct responsibility for budgeting, personnel, and policy implementation, making these individuals key informants for assessing the localization of SDG 4. Finally, the sample reflected a balanced representation of the administrative landscape, with a near-even split between respondents from District Education Offices (52.0%) and Local Administrative Organizations (48.0%).

The data analysis was conducted using SmartPLS 4 software. Following the guidelines of Hair et al. (2021), a two-stage analytical procedure was employed. First, the measurement model (outer model) was assessed to verify the reliability and validity of the constructs. Second, the structural model (inner model) was evaluated to test the hypothesized relationships.

Step 1: Assessment of the Measurement Model

The evaluation of the measurement model involved checking Indicator Reliability (Outer Loadings), Internal Consistency Reliability (Cronbach's Alpha and Composite Reliability), Convergent Validity (AVE), and Discriminant Validity (HTMT).

Indicator Reliability (Factor Loadings)

Table 4: Outer Loadings and Indicator Reliability

Latent Construct	Item Code	Outer Loading	<i>t</i>	<i>p</i>	Outer VIF	Result
Administrative Capacity (AC)	AC1	0.825	34.12	< .001	1.845	Valid
	AC2	0.856	41.05	< .001	2.110	Valid
	AC3	0.792	28.66	< .001	1.650	Valid
	AC4	0.819	31.44	< .001	1.780	Valid
	EC1	0.864	45.22	< .001	2.340	Valid

Latent Construct	Item Code	Outer Loading	<i>t</i>	<i>p</i>	Outer VIF	Result
Enabling Conditions (EC)	EC2	0.881	52.18	< .001	2.450	Valid
	EC3	0.812	29.87	< .001	1.920	Valid
	EC4	0.825	33.15	< .001	1.980	Valid
SDG 4 Localization Success (SDG4LS)	LS1	0.875	48.90	< .001	2.560	Valid
	LS2	0.890	55.41	< .001	2.780	Valid
	LS3	0.854	39.75	< .001	2.210	Valid
	LS4	0.871	46.20	< .001	2.410	Valid

Table 4 shows that individual indicator reliability was assessed by examining the item loadings. According to Hair et al. (2021), items should exhibit loadings above 0.708, which indicates that the latent construct explains more than 50% of the indicator's variance. As shown in the table, all 12 measurement items exhibited outer loadings ranging from 0.792 to 0.890. Furthermore, the bootstrapping analysis confirmed that all loadings were statistically significant ($t > 1.96$, $p < .001$). Consequently, all indicators were retained for further analysis. In addition to outer loadings, Outer Variance Inflation Factor (VIF) values were examined to assess collinearity at the item level; all Outer VIF values ranged from 1.650 to 2.780. All values were well below the 5.0 threshold (Hair et al., 2021), indicating no critical redundancy among the observed indicators.

Internal Consistency and Convergent Validity

Table 5: Construct Reliability and Validity

Latent Construct	Cronbach's Alpha (α)	Composite Reliability (CR)	Average Variance Extracted (AVE)
Administrative Capacity (AC)	0.884	0.913	0.678
Enabling Conditions (EC)	0.892	0.921	0.715
SDG 4 Localization Success (SDG4LS)	0.915	0.938	0.762

The construct reliability and validity statistics are summarized in Table 5. First, internal consistency reliability was established, as the Cronbach's Alpha (α) values ranged from 0.884 to 0.915, and the Composite Reliability (CR) values ranged from 0.913 to 0.938. All values exceeded the critical threshold of 0.70. Second, convergent validity was confirmed, as the Average Variance Extracted (AVE) for all

three constructs ranged from 0.678 to 0.762. These values exceeded the required threshold of 0.50, indicating that the constructs converged satisfactorily to explain the variance in their items.

Discriminant Validity

Table 6: Discriminant Validity (HTMT Ratio)

Construct	(AC)	(EC)	(SDG4LS)
1. Administrative Capacity (AC)	-	-	-
2. Enabling Conditions (EC)	0.654	-	-
3. SDG 4 Localization Success (SDG4LS)	0.725	0.812	-

Discriminant validity was assessed using the Heterotrait-Monotrait (HTMT) ratio, which is considered a more rigorous metric than the Fornell-Larcker criterion. As presented in **Table 6**, all HTMT ratios ranged from 0.654 to 0.812. All values were below the conservative threshold of 0.85 suggested by Henseler et al. (2015). This result confirmed that Administrative Capacity, Enabling Conditions, and SDG 4 Localization Success are empirically distinct, and that the measurement model was free of discriminant validity issues.

Step 2: Assessment of the Structural Model

The assessment of the structural model involved three key procedures: (1) examining lateral collinearity among predictors, (2) assessing the model's explanatory power, and (3) testing the significance of the hypothesized path relationships via bootstrapping.

Collinearity Assessment

Table 7: Inner VIF Values for Collinearity Assessment

Independent Variable	Dependent Variable: SDG 4 Localization Success (VIF)
Administrative Capacity (AC)	1.524
Enabling Conditions (EC)	1.524

Table 7, presented prior to interpreting the path coefficients, assessed lateral collinearity using the Variance Inflation Factor (VIF) to ensure that the independent variables were not linearly dependent. The inner VIF values for both Administrative Capacity and Enabling Conditions were 1.524. These values are well below the 5.0 threshold (and the stricter 3.0 threshold) suggested by Hair et al. (2021), indicating that multicollinearity was not a concern in the structural model.

Explanatory Power (R^2)

Table 8: Coefficient of Determination (R^2) and Effect Size (f^2)

Endogenous Construct	R^2	Result	Predictor	f^2	Effect Size Rating
SDG 4 Localization Success	0.564	Moderate-to-Substantial	Administrative Capacity	0.186	Medium
			Enabling Conditions	0.382	Large

The model's predictive power was evaluated using the Coefficient of Determination (R^2) and Effect Size (f^2), as shown in Table 8. The model explained 56.4% of the variance in SDG 4 Localization Success ($R^2 = 0.564$), indicating moderate-to-substantial explanatory power for behavioral research. Furthermore, the effect size analysis (f^2) revealed that Enabling Conditions ($f^2 = 0.382$) had a significant effect on the dependent variable, while Administrative Capacity ($f^2 = 0.186$) demonstrated a medium effect size (Cohen, 1988).

Hypothesis Testing (Path Analysis)

Figure 2. Final Structural Model with Path Coefficients.

Table 9 Structural Model Path Analysis Results

Hypothesis	Path Relationship	β	Std. Error	t	p	95% CI (Bias Corrected)	Result
H1	AC → SDG4LS	0.342	0.071	4.852	<.001	0.215, 0.465	Supported
H2	EC → SDG4LS	0.495	0.081	6.104	<.001	0.355, 0.628	Supported

The hypothesized relationships were tested using a bootstrapping procedure with 5,000 resamples to generate t -statistics and p -values. The results are summarized in Table 9 and visualized in Figure 2.

Hypothesis 1 (H1): proposed that Administrative Capacity positively influences SDG 4 Localization Success. The analysis supported this hypothesis, showing a significant positive path coefficient ($\beta = 0.342$, $t = 4.852$, $p < .001$). This confirms that internal resources, such as budget stability and personnel competence, are significant drivers of localization success.

Hypothesis 2 (H2): proposed that Enabling Conditions positively influence SDG 4 Localization Success. The analysis also supported this hypothesis, revealing a significant and stronger positive path coefficient ($\beta = 0.495$, $t = 6.104$, $p < .001$). This finding underscores the critical role of external factors, such as political will and policy coherence.

Finally, a comparison of standardized coefficients indicates that Enabling Conditions ($\beta = 0.495$) is the stronger predictor of the two, suggesting that the external environment exerts a more substantial influence on educational outcomes than internal capacity alone.

Conclusion

Summary of Findings

The primary objective of this study was to empirically assess the drivers of educational success by determining the relative predictive influence of Administrative Capacity (AC) and Enabling Conditions (EC) on the localization of SDG 4 (Quality Education).

The PLS-SEM analysis yielded three critical findings. First, the measurement model confirmed that both internal capacity and external conditions are distinct, measurable constructs in the Thai educational context. Second, the structural model supported both hypotheses, confirming that Administrative Capacity (H1) and Enabling Conditions (H2) are significant positive predictors of SDG 4 localization success. Third, and most significantly, the analysis revealed that Enabling Conditions ($\beta = 0.495$) had a substantially more substantial predictive impact than Administrative Capacity ($\beta = 0.342$). This suggests that while internal resources are necessary, the external political and policy environment is the dominant driver of success.

Discussion of Findings

The Role of Administrative Capacity (H1)

The finding that Administrative Capacity significantly predicts the localization of SDG 4 supports Honig's (2019) implementation theory. It confirms that the "street-level" ability to manage budgets, utilize technology, and coordinate personnel is a fundamental prerequisite for policy execution. Without these internal resources, the abstract goals of SDG 4 (e.g., inclusive access, relevant skills) cannot be operationalized into daily school management. This aligns with Lodge and Wegrich (2014), who argue that administrative competence is the "engine" of the modern state; without fuel (budget) and a capable crew (HR), the engine cannot drive reform.

The Dominance of Enabling Conditions (H2)

The study's most notable finding is the superior predictive power of Enabling Conditions. This aligns with Hasnain's (2024) institutional arguments, which posit that barriers to SDG 4 are often political rather than technical. The results suggest that even a competent local education office will struggle to achieve targets if it operates within a hostile environment characterized by fragmented national policy or a lack of local political will. Conversely, strong political support and policy coherence appear to act as a "force multiplier," amplifying the effectiveness of local efforts. This echoes the OECD's (2020) findings on policy coherence: when external signals are clear and supportive, local implementation becomes significantly more feasible.

Implications

Theoretical Implications

This study contributes to public administration theory by clarifying the relative importance of internal versus external drivers. By testing these factors within a single PLS-SEM framework, the study demonstrates that they are not equal partners; the external environment acts as a binding constraint. This supports a shift in theoretical focus from a purely managerial view (fixing internal skills) to an institutional view (fixing the surrounding governance ecosystem).

Policy Implications

For policymakers and international donors, the findings offer a clear, evidence-based directive for resource allocation.

1. **Prioritize Political and Policy Reform:** Since Enabling Conditions are the stronger driver, investments in "soft" reforms such as advocacy for political will, harmonizing national-local policies, and building community coalitions may yield a higher Return on Investment (ROI) than merely increasing operational budgets.
2. **Capacity Building is Insufficient Alone:** While training administrators (AC) is important, this study suggests it is insufficient if the external environment (EC) remains obstructive. Capacity-building programs must be paired with efforts to secure political commitment and policy clarity.

Limitations and Future Research

This study is subject to certain limitations. First, the cross-sectional design prevents assessing causal trends over time; a longitudinal study could examine how changes in political will eventually lead to improved administrative capacity. Second, the data reflect administrators' perceptions, which may differ from objective performance metrics (e.g., standardized test scores). Future research should aim to integrate objective educational data to validate these perceptual findings. Finally, the study was context-specific to Thailand; comparative studies in other decentralized educational systems would be valuable to test the generalizability of the "Enabling Conditions Dominance" hypothesis.

Conclusion

Achieving SDG 4 is not merely a technical challenge of better management; it is fundamentally a political and institutional challenge. This study empirically demonstrates that while Administrative Capacity enables action, Enabling Conditions provide the opportunity to succeed. For nations striving to close the gap between global education goals and local classroom realities, the path forward requires looking beyond the internal mechanics of administration to address the broader political and policy environment in which schools operate.

References

- [1] Almeida, F., & Morais, J. (2024). Non-formal education as a response to social problems in developing countries. *E-Learning and Digital Media*, 22(2), 122–138. doi:<https://doi.org/10.1177/20427530241231843>
- [2] Berquist, M., Daniere, A., & Drummond, L. (2014). Planning for global environmental change in Bangkok's informal settlements. *Journal of Environmental Planning and Management*, 58(10), 1171–1730. doi:<https://doi.org/10.1080/09640568.2014.945995>
- [3] Chaiyaseth, P. (2024). The Evolution of Low-Income Housing Policy Paradigms in Thailand. *Built Environment Inquiry Journal*, 23(3), 176–193.
- [4] Channuwong, S., Tongvijit, M., Bangbon, P., Siripap, P., Weerachareonchai, P., Rattananda, N., . . . Wongwean, B. (2025). The Influence of Cultural Factors on Organizational Justice of Public Organizations in Bangkok. *Journal of Neonatal Surgery*, 14(3), 1–9. doi:<https://doi.org/10.52783/jns.v14.1962>
- [5] Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (4th ed.). SAGE Publications.
- [6] Etikan, I. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, 5(1), 1–4. doi:[10.11648/j.ajtas.20160501.11](https://doi.org/10.11648/j.ajtas.20160501.11)
- [7] Faul, F., Erdfelder, E., Buchner, A., & Lang, A.-G. (2009). Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, 41(4), 1149–1160.
- [8] Feng, H., Yang, B., & Bhandari, P. (2024). The influence of CSR on cross-border mergers and acquisitions. *Finance Research Letters*, 70(2024), 106273. doi:<https://doi.org/10.1016/j.frl.2024.106273>
- [9] Hadjri, K., Durosaiye, I., Abubakar, A., Sinuraibhan, S., Sattayakorn, S., Wungpatcharapon, S., & Ramasoot, S. (2023). An exploration of live–work housing conditions of low-income older people in Bangkok, Thailand. *Housing and Society*, 51(3), 207–232. doi:<https://doi.org/10.1080/08882746.2024.2387416>
- [10] Hair, J. F., G. Tomas, H. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). *Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R*. Springer.
- [11] Hair, J. F., William, B. C., Barry, B. J., & Rolph, A. E. (2010). *Multivariate Data Analysis* (Vol. 7).
- [12] Hasnain, S. (2024). A Review of the barriers to the implementation of Education for Sustainable Development. *INTERNATIONAL JOURNAL OF RESEARCH CULTURE SOCIETY*, 8(5), 1–9. doi:[10.2017/IJRCS/202405001](https://doi.org/10.2017/IJRCS/202405001)
- [13] Henseler, J., Ringle, C. M., & Sarstedt, M. (2014). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43, 115–135.
- [14] Honig, M. I. (2003). Building Policy From Practice: District Central Office Administrators' Roles and Capacity for Implementing Collaborative Education Policy. *Educational Administration Quarterly*, 39(3), 292–338. doi:[10.1177/0013161X03253414](https://doi.org/10.1177/0013161X03253414)
- [15] Hoo, W. C., Ng, A. H., Ho, R. C., Ling, Z., & Prompanyo, M. (2024). Determinants of eco-homestay among young adults in Malaysia. *Environment and Social Psychology*, 9(8), 1–17. doi:<https://doi.org/10.59429/esp.v9i8.2882>
- [16] Hossain, S. F., Rashed, M., Bari, T., Sushme, S. S., Akter, T., Islam, M. F., . . . Bhandari, P. (2025). The influence of hybrid leadership on sustainable women's entrepreneurial performance. *Sustainable Futures*, 9(100727), 1–14. doi:<https://doi.org/10.1016/j.sfr.2025.100727>
- [17] Howlett, M. (2024). *Designing Public Policies: Principles and Instruments*. 3rd Edition. Routledge.
- [18] Kanchanawongpaisan, S., Zhou, F., Niu Voon, B. W., Lu, L., & Sing-Ee Tan, R. (2024). Assessing the influence of college reputation on student expectations, perceived value, and satisfaction in higher education institutions of Pathum Thani Province, Thailand. *Journal of Infrastructure, Policy and Development*, 8(8), 1–17.
- [19] Kenikasahmanworakhun, P., Papraporn Jinain, P., Jinain, P., Khantanapha, N., Thanathanchuchot, T., Thanathanchuchot, T., & Channuwong, S. (2025). Intellectual Capital, Innovation Capability, and Knowledge Integration of Hi-Tech Firms in Thailand. *Journal of Neonatal Surgery*, 14(7s), 258–265.
- [20] Lochmiller, C. R., & Hedges, S. L. (2017). *Education Policy Implementation Research: A Call for New Approaches*. In J. N. Lester, C. R. Lochmiller, & R. E. Gabriel, *Discursive Perspectives on Education Policy and Implementation* (pp. 17–40). https://doi.org/10.1007/978-3-319-58984-8_2.
- [21] Lodge, M. C., & Wegrich, K. (2014). *The Problem-Solving Capacity of the Modern State: Governance Challenges and Administrative Capacities*. Oxford University Press. Oxford University Press.
- [22] Manteaw, B. O., Bofo, Y. A., Owusu, E. H., Enu, K. B., & Amoah, A. B. (2025). Transgressive pedagogies in a climate-constrained Africa: grounding climate change education and sustainability learning in local communities. *Frontiers in Education*, 1–17.
- [23] Matland, R. E. (1995). Synthesizing the implementation literature: The ambiguity-conflict model of policy implementation. *Journal of Public Administration Research and Theory*, 5(2), 145–174. doi:[10.1093/oxfordjournals.jpart.a037242](https://doi.org/10.1093/oxfordjournals.jpart.a037242)
- [24] OECD. (2021). *Education in the time of COVID-19: Impacts of the pandemic on poverty and education*. Retrieved May 2, 2025, from Organisation for Economic Co-operation and Development: <https://www.oecd.org/education/>

- [25] Psacharopoulos, G., & Patrinos, H. A. (2018). Returns to investment in education: a decennial review of the global literature. *Education Economics*, 26(5), 445–458. doi:<https://doi.org/10.1080/09645292.2018.1484426>
- [26] Ray, S., & Chakravarty, S. (2025). Innovative initiatives to improve access to education in urban slums: A critical review of mobile school education programs. *Cities*, 159, 1–17. doi:<https://doi.org/10.1016/j.cities.2025.105748>
- [27] Read, R., & Benavot, A. (2023). Global Education Monitoring Report. In R. J. Tierney, F. Rizvi, & K. Ercikan, *International Encyclopedia of Education (Fourth Edition)* (pp. 553–564).
- [28] Save the Children. (2023). Education and Child Poverty in Urban Slums: A Global Report. Retrieved May 20, 2025, from Save the Children: <https://www.savethechildren.net/>
- [29] UNESCO. (2022). Reimagining our futures together: a new social contract for education. United Nations Educational, Scientific, and Cultural Organization. doi:<https://unesdoc.unesco.org/ark:/48223/pf0000379707>
- [30] UNICEF. (2022). Education: For every child, the right to learn. Retrieved May 1, 2025, from UNICEF: <https://www.unicef.org/thailand/what-we-do/education>
- [31] Vasudevan, A., Salim, I., Mohammad, S. I., Wenchang, C., Krishnasamy, H. N., Parahakaran, S., . . . Alshurideh, M. T. (2025). Sustainable Leadership and Employee Performance: The Role of Organizational Culture in Malaysia's Information Science Sector. *Applied Mathematics & Information Sciences*, 19(1), 101–113. doi:[doi:10.18576/amis/190109](https://doi.org/10.18576/amis/190109)
- [32] Vesudevan, M., Abdullah, Z., Vasudevan, A., & Qin, P. (2025). Integrating sustainable leadership in Malaysian higher education: Effective strategies for implementation and impact. *Multidisciplinary Reviews*, 8(4), e2025115. doi:[DOI:https://10.31893/multirev.2025115](https://doi.org/10.31893/multirev.2025115)
- [33] World Bank. (2021). Poverty and Equity Brief: Thailand. Retrieved April 16, 2025, from World Bank: <https://databank.worldbank.org/>
- [34] Wu, C.-J. J., Chen, S.-M., & Ramis, M.-A. (2025). Educational Challenges for Post-Graduate Nursing Students Throughout the COVID-19 Pandemic: A Scoping Review. *Nurs Health Sci*, 27(1), e70032. Doi:[doi:10.1111/nhs.70032](https://doi.org/10.1111/nhs.70032).
- [35] Wu, X., Ramesh, M., & Howlett, M. (2015). Policy capacity: A conceptual framework for understanding. *Policy and Society*, 34(3-4), 165–171. doi:<https://doi.org/10.1016/j.polsoc.2015.09.001>
- [36] Zajda, J., & Vissing, Y. (2024). Globalisation, Cultural Diversity, and Human Rights. In J. Zajda, *Globalisation, Comparative Education and Policy Research* (Vol. 44, pp. 1–10). Cham: Springer. doi:https://doi.org/10.1007/978-3-031-55478-0_1.