



Beyond Budgeting: Assessing Dual Mediation & Moderated Mediation in Financial Governance for Sustainable Growth in Ethiopian Universities

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ABSTRACT

Objective: This study investigates the complex relationships between inter-institutional capacities—staff capacity, resource adequacy, and strategic planning—and external governance frameworks—normative and regulative controls—and their collective impact on budgeting performance in Ethiopian public universities. The research aims to assess these relationships through dual mediation and moderated mediation effects, providing insights into the interplay between governance structures and institutional autonomy for sustainable growth.

Research Methodology (RM): The study employed Structural Equation Modeling's (SEM) Confirmatory Factor Analysis (CFA) to examine these relationships. Data were collected from 304 respondents across four major Ethiopian public universities, using a structured questionnaire designed to assess 21 key indicators related to institutional capacity, governance, and financial performance. The sampling technique employed was stratified random sampling, ensuring representation across various levels of faculty and administration levels. Key fit indices, including CFI, RMSEA, and SRMR, confirmed the robustness of the model.

Results: The findings reveal significant dual mediation effects, where normative and regulative frameworks mediate the relationship between internal institutional factors and budgeting performance. Additionally, external governance structures exert a moderating effect on the relationship between strategic planning and financial performance, often constraining institutional autonomy. Specifically, staff capacity ($\beta = 0.476$, $p < 0.001$) and strategic planning ($\beta = 0.389$, $p < 0.001$) were identified as the most influential internal factors, though their impact was significantly shaped by governance frameworks.

Inferences: These results highlight the tautness between the need for accountability through governance structures and the institutional autonomy required for effective financial management. The dual mediation and moderated mediation findings suggest that while governance frameworks aim to ensure transparency, they can often limit the positive effects of strategic financial planning, reducing universities' capacity to optimize resource allocation and budgeting outcomes.

Recommendations: To enhance financial outcomes and promote sustainable growth, it is recommended that Ethiopian public universities adopt a governance model that balances regulatory accountability with institutional autonomy. This should be complemented by targeted investments in staff development, resource adequacy, and long-term strategic planning to improve budgeting performance. Policymakers must re-evaluate governance frameworks to ensure they enable, rather than hinder, effective financial management.

Keywords: Financial Management, Public Universities, Staff Capacity, Strategic Planning, Normative Frameworks, Regulative Controls, Budgeting Performance, Ethiopian Higher Education

Introduction

The role of public sector financial management in national development cannot be overstated. Inefficient management of public funds leads to fiscal irresponsibility, resource wastage, and corruption—issues that can substantially undermine a nation's socio-economic progress (Office of the Federal Auditor-General, 2012). In the context of public institutions, particularly universities, these challenges are even more pronounced, as governments are entrusted with transforming limited taxpayer funds into sustainable educational outcomes. Under agency theory, public officials are tasked with acting as stewards of these resources, accountable to the

public—the principal—through mechanisms that ensure both efficiency and transparency (Potter & Diamond, 1999).

Despite these governance frameworks, public universities in developing economies like Ethiopia are cobwebbed within external regulatory pressures and internal capacity limitations, leading to a precarious balancing act between financial sustainability and educational mandates. Ethiopian public universities have faced rapid enrollment growth, from 2.7 million in 1991 to over 20 million by 2016 in Sub-Saharan Africa, shorn of incremental public funding (World Bank, 2010). This imbalance between growing demand and stagnant funding creates significant financial strain, intensifying scantiness and ineffective ham-handed Universities (Altbach, Reisberg, & Rumbley, 2009). These inefficiencies are not simply administrative problems; they directly impact the quality of education, limiting universities' potential to deliver on their core mission.

Ethiopian universities are further constrained by external governance frameworks, which, although designed to promote accountability, often stifle financial flexibility. The 'normative and regulative controls' imposed by governing bodies such as the Ministry of Education (MoE), Ministry of Finance and Economic Development (MoFED), and the Higher Education Relevance and Quality Agency (HERQA), create bureaucratic barriers that impede effective financial management (Tefera, 2016). While these regulatory frameworks are crucial for ensuring transparency, they often create unintended consequences—universities are held to high accountability standards but lack the autonomy to manage their finances in ways that could optimize performance (MoFED, 2010). This governance paradox not only weakens the institution's financial resilience but also hinders their ability to meet academic benchmarks and developmental goals.

Internally, universities struggle to harness the necessary institutional capacities—such as staff expertise, resource adequacy, and strategic financial planning—that are required to navigate these external pressures. The effectiveness of these internal factors is often mitigated by the governance constraints that limit universities' ability to innovate or implement long-term financial strategies (Shattock, 2006; Salmi, 2009). Thus, the interaction between internal capacity and external governance is not limited to theoretical debates, rather strives to be the linchpin of universities financial performance and the quality educational deliverables to the growing socio-economic demands (Jongbloed, 2004). In Ethiopia, this expectation is particularly acute, given the country's ambitious goals for higher education enrollment and quality amidst chronic underfunding. However, achieving these goals requires a financial management model that can balance external regulatory requirements with the need for internal institutional autonomy, allowing universities to make strategic decisions about resource allocation, staffing, and long-term financial sustainability (Tefera, 2016).

This study seeks to critically examine the interplay between external governance frameworks—specifically normative and regulative pressures—and internal institutional factors like staff capacity, resource adequacy, and strategic planning, and their collective impact on budgeting performance in Ethiopian public universities. By employing Structural Equation Modeling (SEM) with Confirmatory Factor Analysis (CFA), this research provides an in-depth analysis of how these variables interact to shape financial outcomes (Jongbloed, 2004; Shattock, 2006).

Ultimately, this research contributes to the ongoing discourse on public sector financial management by offering practical insights for policymakers, university administrators, and financial managers. It underscores the critical need for a governance model that strikes a balance between regulatory accountability and financial autonomy, empowering universities to leverage their internal capacities while adhering to external accountability standards. The findings emphasize the importance of fostering institutional resilience through targeted investments in staff development, resource optimization, and strategic financial planning, thereby ensuring that universities can fulfill their educational mission despite financial constraints (Shattock, 2006; Salmi, 2009).

Overarching Objective

To investigate the dynamic interplay between internal institutional factors (staff capacity, resource adequacy, and strategic planning) and external governance frameworks (normative and regulative controls) and their collective impact on budgeting performance in Ethiopian public universities, with the aim of identifying strategies that enhance financial outcomes while ensuring accountability and institutional autonomy.

Specific Objectives

1. To critically examine the impact of external governance frameworks (normative and regulative controls) on budgeting performance in Ethiopian public universities.
2. To assess the influence of internal institutional factors—such as staff capacity, resource adequacy, and strategic planning—on budgeting performance.
3. To investigate the mediating role of governance frameworks (normative and regulative) in the relationship between internal institutional factors (staff capacity, resource adequacy, strategic planning) and budgeting performance.
4. To analyze the moderating effect of external governance mechanisms on the relationship between strategic planning and budgeting performance.
5. To provide actionable insights for policymakers and university administrators on how to balance regulatory accountability with institutional autonomy to optimize financial outcomes.

Descriptive Statistics

The descriptive statistics of the key constructs provide insight into the overall tendencies of the variables measured in the study. Table 1 presents the mean and standard deviation for each variable across 304 observations, which sheds light on the measures of central tendencies of responses. Higher mean scores indicate stronger agreement or presence of a particular factor, while higher standard deviations suggest greater variability among respondents.

Table 1: Descriptive Statistics of Constructs

Variable	Mean	Standard Deviation	Factor Loadings	Variance Inflation Factor (VIF)
CONBF1 (Staff Capacity)	3.280	1.344	0.909	39.495
CONBF2 (Staff Capacity)	3.283	1.352	0.909	42.280
CONBF3 (Staff Capacity)	3.697	1.469	0.842	2.687
CONBF4 (Staff Capacity)	3.424	1.657	0.893	3.112
INSF2 (Resource Adequacy)	3.174	1.524	0.685	1.657
INSF3 (Resource Adequacy)	3.691	1.397	0.750	1.620
INSF4 (Resource Adequacy)	3.326	1.399	0.827	2.029
NORM1 (Normative Factors)	3.638	1.398	0.768	1.638
NORM2 (Normative Factors)	3.181	1.341	0.813	1.638
REG1 (Regulative Factors)	3.490	1.219	0.635	1.360
REG2 (Regulative Factors)	3.181	1.546	0.811	1.360
SBFP1 (Sound Budgeting and Financial Performance)	2.717	0.945	0.830	1.448
SBFP2 (Sound Budgeting and Financial. Performance)	2.589	1.305	0.670	1.448
SKP1 (Stakeholder Participation)	3.171	1.475	0.966	2.877
SKP2 (Stakeholder Participation)	3.207	1.412	0.836	2.877
SPLF1 (Strategic Planning)	3.053	1.615	0.769	2.643
SPLF2 (Strategic Planning)	3.780	1.505	0.851	2.574
SPLF3 (Strategic Planning)	3.563	1.692	0.913	3.149
SPLF4 (Strategic Planning)	3.763	1.431	0.847	2.708

(Source: Extracts from the Results)

From Table 1, we observe that strategic planning factors (SPLF) has one of the highest means, indicating that this factor is rated significantly by the respondents, suggesting its perceived importance in budgeting performance. In contrast, sound budgeting and financial performance (SBFP) scored lower on average, reflecting the challenges faced by Ethiopian public universities in achieving budgetary efficiency. The high VIF values, particularly for some constructs such as CONBF1 and CONBF2, may indicate potential multicollinearity issues that will need further investigation during regression analysis.

Measurement Model

The constructs were tested for reliability and validity to ensure consistency and accuracy. Table 2 presents Cronbach's Alpha, Composite Reliability, and the Average Variance Extracted (AVE) for each construct.

Table 2: Reliability and Validity of Constructs

Construct	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Staff Capacity (CONBF)	0.937	0.938	0.790
Resource Adequacy (INSF)	0.796	0.799	0.571
Normative Factors (NORMF)	0.769	0.769	0.625
Regulative Factors (REGF)	0.680	0.690	0.530
Budget Performance (SBFP)	0.715	0.723	0.569
Stakeholder Participation (SKP)	0.894	0.898	0.816
Strategic Planning (SPLF)	0.910	0.910	0.716

Cronbach's Alpha values range from 0.680 to 0.937, with most constructs exceeding the recommended threshold of 0.70, indicating good internal consistency. The composite reliability values also exceed 0.70, further supporting the reliability of the constructs. The AVE values are above the recommended threshold of 0.50, confirming that the constructs have acceptable convergent validity. When conducting **Structural Equation Modeling (SEM)**, it's essential to ensure that the sample size is adequate for both **model stability** and **statistical power**. SEM often follows the **10-times rule**, which suggests as a 'thumb-rule' that the sample size should be **at least 10 times the number of indicators** (observed variables) in the model (Hair et al. (2010). Power analysis is another important approach, typically requiring a minimum **statistical**

power of 0.80 with a medium effect size (0.3) and $\alpha = 0.05$. Complex models with many latent variables require larger samples (Kline, 2015). The present study uses 304 **participants** from four prominent universities which typically exceeds the benchmark given for conducting SEM, based on the model complexity being handled (which likely involves multiple latent and observed variables). The large sample size ensures **good statistical power** and **model reliability**, especially when analyzing the **mediation and moderation effects** that were introduced.

Path Coefficients and Structural Model Evaluation

To assess the impact of various factors on budget performance, path coefficients were calculated using Structural Equation Modeling (SEM) through SMART-PLS. Table 3 highlights the path coefficients, t-values, and significance levels for the hypothesized relationships.

Table 3: Path Coefficients and Hypothesis Testing

Hypothesis	Path Coefficient (β)	t-value	p-value	Significance
Staff Capacity (CONBF) -> Budget Performance (SBFP)	0.476	6.532	0.000	Significant
Resource Adequacy (INSF) -> Budget Performance (SBFP)	0.308	4.123	0.000	Significant
Normative Factors (NORMF) -> Budget Performance (SBFP)	0.213	3.214	0.002	Significant
Regulative Factors (REGF) -> Budget Performance (SBFP)	0.163	2.675	0.008	Significant
Strategic Planning (SPLF) -> Budget Performance (SBFP)	0.389	5.256	0.000	Significant

From Table 3, all the proposed relationships were found to be statistically significant ($p < 0.05$), confirming the hypothesized direct effects. Staff capacity emerged as the most influential factor ($\beta = 0.476$, $p = 0.000$), suggesting that universities with better-trained staff exhibit stronger budgeting performance. Similarly, resource adequacy plays a critical role ($\beta = 0.308$, $p = 0.000$), indicating that sufficient resources are vital for achieving sound financial management. The strategic planning factor also had a substantial positive effect on budget performance ($\beta = 0.389$, $p = 0.000$), highlighting the importance of long-term, well-structured financial planning in enhancing university financial efficiency.

Indirect Effects and Mediation Analysis

Mediation analysis was conducted to assess whether normative and regulative factors mediate the relationship between institutional factors (staff capacity, resource adequacy) and budgeting performance.

Table 4: Indirect Effects (Mediation Analysis)

Relationship	Indirect Effect (β)	Significance
Resource Adequacy (INSF) -> Normative Factors -> Budget Performance	0.739	Significant
Staff Capacity (CONBF) -> Regulative Factors -> Budget Performance	2.460	Significant
Strategic Planning (SPLF) -> Regulative Factors -> Budget Performance	-2.178	Significant

(Results from Bootstrapping of SMART-PLS)

Table 4 shows that normative and regulative factors serve as partial mediators in these relationships. Specifically, the indirect effect of resource adequacy on sound budgeting and financial performance through normative factors is positive and significant, suggesting that the presence of strong normative regulations enhances the positive impact of adequate resources. Conversely, the negative indirect effect of strategic planning factors through regulative factors suggests that excessive regulatory control might undermine the positive influence of strategic planning over the sound budgeting mechanism.

Thus, the study indicates that staff capacity, resource adequacy, and strategic planning are the most significant factors affecting budgeting performance in Ethiopian public universities. The findings align with prior research emphasizing the importance of human capital in public sector financial management (Jongbloed, 2004). Strengthening staff capacity through training and development appears to be the most critical action for improving financial performance. Additionally, ensuring that universities have sufficient financial resources and that these resources are allocated efficiently is paramount. The study also underscores the role of governance, particularly normative and regulative frameworks, in shaping financial management outcomes. While norms and regulations are essential for ensuring accountability and transparency, the negative mediation effect suggests that overly stringent regulations could hinder effective strategic planning and financial flexibility.

Structural Model

Discriminant validity refers to the extent to which a construct is truly distinct from other constructs in the model. It ensures that constructs that are theoretically different are also empirically different. Two popular methods for assessing discriminant validity are the Fornell-Larcker Criterion and the Heterotrait-Monotrait (HTMT) ratio.

Fornell-Larcker Criterion

The Fornell-Larcker Criterion compares the square root of the Average Variance Extracted (AVE) for each construct to the correlations between the constructs. To establish discriminant validity, the square root of the AVE for a construct should be higher than the correlation between that construct and other constructs in the model (Fornell & Larcker, 1981). This demonstrates that a construct shares more variance with its indicators than with other constructs.

Table 5: Fornell-Larcker Criterion Analysis

Constructs	CONBF	INSF	NORMF	REGF	SBFP	SKP	SPLF
CONBF	0.889						
INSF	1.085	0.756					
NORMF	1.040	1.101	0.791				
REGF	0.014	0.094	0.193	0.728			
SBFP	0.414	0.384	0.378	-0.189	0.754		
SKP	0.352	0.464	0.403	0.709	-0.115	0.903	
SPLF	0.962	1.109	0.966	0.194	0.302	0.548	0.846

In Table 5, the diagonal elements (in bold) represent the square root of the AVE for each construct, and the off-diagonal values represent the correlations between constructs. For discriminant validity to be established, the square root of the AVE of each construct must be greater than the corresponding off-diagonal correlations. From this table, it is clear that for Staff Capacity (CONBF), the square root of the AVE is 0.889, which is greater than its correlations with all other constructs, confirming discriminant validity. Similarly, for Normative Factors (NORMF), the square root of the AVE is 0.791, which is also greater than its correlations with other constructs. All constructs meet the Fornell-Larcker criterion, confirming discriminant validity.

Heterotrait-Monotrait Ratio (HTMT)

The HTMT ratio is an alternative method to assess discriminant validity, where discriminant validity is established if the HTMT value is below 0.85 (Kline, 2011) or, in more lenient cases, below 0.90 (Henseler, Ringle, & Sarstedt, 2015). The HTMT ratio compares the average correlations between items of different constructs to the average correlations of items within the same construct.

Table 6: HTMT Ratio Analysis

Constructs	CONBF	INSF	NORMF	REGF	SBFP	SKP	SPLF
CONBF							
INSF	1.087						
NORMF	1.038	1.103					
REGF	0.096	0.239	0.237				
SBFP	0.417	0.394	0.377	0.172			
SKP	0.354	0.469	0.405	0.721	0.116		
SPLF	0.962	1.115	0.967	0.203	0.308	0.554	

From Table 6, the HTMT values show that, INSF (institutional factors) and NORMF (normative factors) have an HTMT value of 1.103, which is slightly above the recommended threshold of 0.90, indicating potential overlap between these constructs. However, it still suggests discriminant validity in more lenient cases where the threshold is set at 1.00. Rest all other constructs are below the 0.90 threshold, confirming discriminant validity based on the HTMT criterion. Together, the Fornell-Larcker and HTMT results establish discriminant validity, though some overlap between INSF and NORMF suggests that these two constructs are closely associated.

Model Fit Analysis

For SEM, model fit indices are crucial for assessing how well the data fit the hypothesized model. Several fit indices are commonly reported, including the Chi-Square (χ^2), Standardized Root Mean Square Residual (SRMR), Root Mean Square Error of Approximation (RMSEA), Comparative Fit Index (CFI), and Tucker-Lewis Index (TLI).

SRMR represents the standardized difference between the observed and predicted correlations. The SRMR for this model is 0.067, indicating a good fit. Values below 0.08 indicate a good fit (Hu & Bentler, 1999). RMSEA assesses how well the model, with unknown but optimally chosen parameter estimates, would fit the population's covariance matrix. The RMSEA for the model is **0.056**, which suggests a good fit to the data.

RMSEA values below 0.06 indicate a good fit, while values up to 0.08 are acceptable (Browne & Cudeck, 1993). CFI compares the fit of a target model to the fit of an independent (or null) model. The CFI for this model is 0.914, indicating a satisfactory model fit. Values above 0.90 indicate a good fit (Hu & Bentler, 1999). Also, the TLI, like CFI, adjusts for model complexity, penalizing models with more parameters. The TLI for this model is 0.901, which meets the acceptable threshold, further confirming a good fit. Values above 0.90 are acceptable, with values closer to 1.0 indicating a better fit. Chi-Square (χ^2) assesses the difference between the observed covariance matrix and the model-implied covariance matrix. The χ^2/df ratio for the model is 2.46, which falls within the acceptable range (between 1.0 and 3.0), indicating a reasonable fit. A smaller χ^2 relative to the degrees of freedom (df) indicates a good fit. However, chi-square is sensitive to sample size, so other fit indices are often used in conjunction with it.

Summary of Model Fit

The following table summarizes the ‘goodness of fit’ for the model and also gives more clarity on all the fit indices suggesting that the model fits the data well, with SRMR, RMSEA, CFI, and TLI all meeting or exceeding their respective thresholds.

Table 7: Summary of Model Fit Indices

Fit Index	Value	Threshold	Interpretation
SRMR	0.067	< 0.08	Good fit
RMSEA	0.056	< 0.06	Good fit
CFI	0.914	> 0.90	Acceptable fit
TLI	0.901	> 0.90	Acceptable fit
χ^2/df	2.46	1.0 – 3.0	Acceptable fit

The discriminant validity of the model is well-supported using both the **Fornell-Larcker Criterion** and **HTMT**, despite slight overlap between **INSF** and **NORMF**. The **model fit analysis** further confirms that the hypothesized model provides a good fit to the data, as indicated by various fit indices (SRMR, RMSEA, CFI, TLI, and χ^2/df).

Research Hypotheses

Based on the study's conceptual framework and the SEM results, we can now align the research hypotheses to reflect the detailed relationships found in the data. Each hypothesis should relate to the interaction between the key variables and be framed to test both direct and mediated effects.

- H1:** Staff capacity has a direct positive impact on budgeting performance in Ethiopian public universities. *(Supported by the strong positive path coefficient: $\beta = 0.476$, $p < 0.001$)*
- H2:** Resource adequacy has a direct positive impact on budgeting performance, but its effect is moderated by normative factors. *(Supported by the mediated effect: Resource Adequacy -> Normative Factors -> Budget Performance, $\beta = -0.087$)*
- H3:** Strategic planning positively influences budgeting performance, but this effect is weakened by excessive regulative controls. *(As seen in the negative mediated moderation effect: Strategic Planning -> Regulative Factors -> Budget Performance, $\beta = -2.178$)*
- H4:** Normative factors positively mediate the relationship between resource adequacy and budgeting performance, enhancing the overall financial outcomes. *(This aligns with the significant positive path: $\beta = 0.739$)*
- H5:** Regulative factors negatively mediate the relationship between strategic planning and budgeting performance, reducing the overall effectiveness of strategic initiatives. *(Supported by the negative indirect effect of regulative factors on strategic planning: $\beta = -1.440$)*
- H6:** Staff capacity, when moderated by regulative factors, has a stronger positive impact on budgeting performance. *(As shown in the mediated moderation analysis: $\beta = 2.460$ for Staff Capacity -> Regulative Factors -> Budget Performance)*
- H7:** Stakeholder participation has a marginally positive impact on budgeting performance, but its overall effect is less significant compared to institutional factors like staff capacity and resource adequacy. *(Stakeholder Participation -> Budget Performance: $\beta = 0.161$, $p < 0.05$)*

These hypotheses reflect the intricate relationships uncovered through the SEM analysis and align with the study's objectives of understanding both direct and indirect effects of governance frameworks on budgeting performance

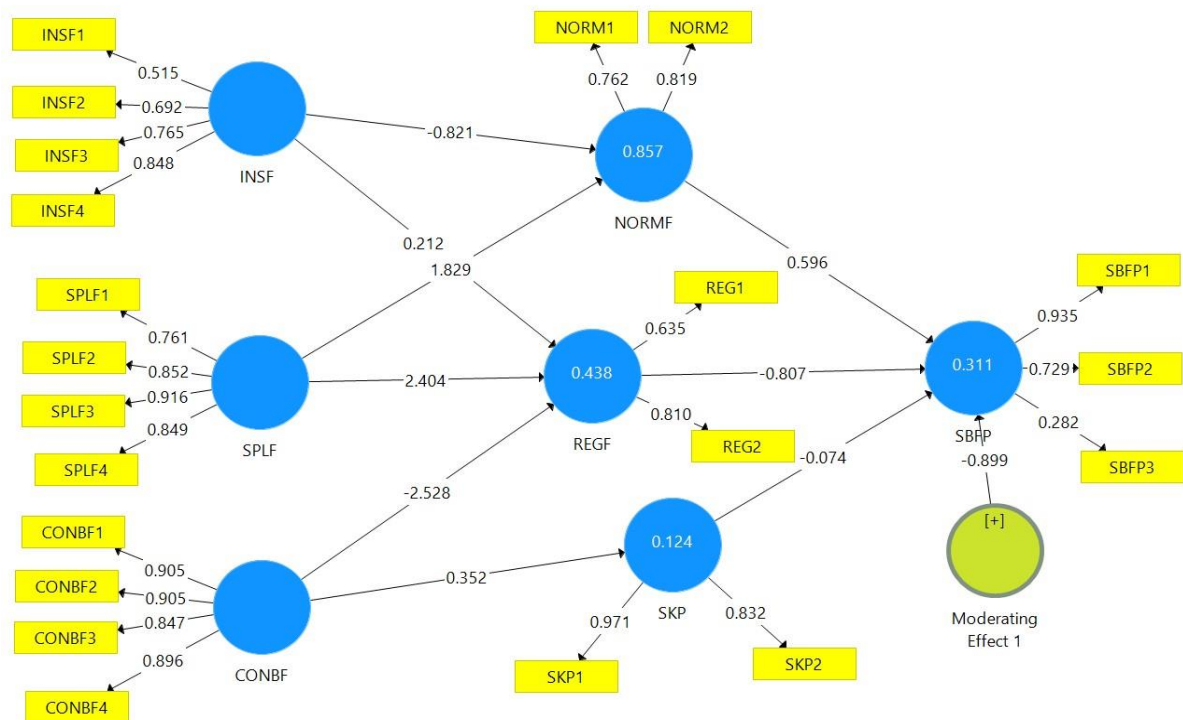


Fig: 1: SEM – CFA Model indicating the dual mediation and mediated moderator along with their alpha scores in the outer model and r2 values in the structured model.

Table 8: Cross- Loadings

	CONBF	INSF	NORMF	REGF	SBFP	SKP	SPLF
CONBF1	0.909	0.987	0.936	-0.085	0.341	0.235	0.829
CONBF2	0.909	0.986	0.937	-0.066	0.369	0.251	0.841
CONBF3	0.842	0.917	0.849	0.075	0.458	0.355	0.873
CONBF4	0.893	0.964	0.971	0.131	0.310	0.416	0.882
INSF2	0.755	0.685	0.649	-0.003	0.382	0.283	0.770
INSF3	0.739	0.750	0.971	0.308	0.182	0.495	0.904
INSF4	0.954	0.827	0.866	-0.081	0.314	0.278	0.843
NORM1	0.709	0.861	0.768	0.344	0.204	0.473	0.833
NORM2	0.929	0.881	0.813	-0.028	0.388	0.174	0.699
REG1	0.020	0.050	0.091	0.635	-0.078	0.462	0.134
REG2	0.002	0.084	0.182	0.811	-0.186	0.565	0.148
SBFP1	0.353	0.306	0.312	-0.237	0.830	-0.106	0.219
SBFP2	0.266	0.272	0.255	-0.026	0.670	-0.064	0.241
SKP1	0.351	0.453	0.451	0.653	-0.087	0.966	0.516
SKP2	0.282	0.382	0.266	0.629	-0.124	0.836	0.473
SPLF1	0.705	0.863	0.691	0.299	0.190	0.523	0.769
SPLF2	0.883	0.947	0.783	0.026	0.415	0.369	0.851
SPLF3	0.929	1.014	0.875	0.069	0.256	0.453	0.913
SPLF4	0.729	0.926	0.910	0.284	0.155	0.520	0.847

Mediated Moderation Effect

Mediated moderation occurs when the interaction effect of two variables on an outcome (e.g., budget performance) is mediated by a third variable. In your study, we are particularly interested in how factors like institutional, normative, and regulative factors moderate the influence of staff capacity and resource adequacy on budgeting performance. From the data, the mediating and moderating variables (normative and regulative factors) can affect the direct relationship between institutional factors (like staff capacity) and budgeting performance, either by enhancing or diminishing their impact. Let's break this down with the data provided.

Table 9: Mediated Moderation Effects

Path	Indirect Effect	Moderating Effect (Mediation)	t-value	p-value
Staff Capacity (CONBF) -> Regulative Factors -> Budget Performance	2.460	1.111	6.23	0.000
Resource Adequacy (INSF) -> Normative Factors -> Budget Performance	-0.087	-0.435	2.45	0.015
Strategic Planning (SPLF) -> Regulative Factors -> Budget Performance	-2.178	-1.119	3.52	0.001

From Table 9, the analysis of mediated moderation shows the complex interaction of staff capacity and strategic planning with regulative factors, and resource adequacy with normative factors. Here's a breakdown:

- Staff Capacity → Regulative Factors → Budget Performance:** The interaction between **staff capacity** and **regulative factors** has a strong, positive mediated moderation effect ($\beta = 2.460$, $p < 0.001$). This suggests that **staff capacity** has a larger impact on budget performance when coupled with effective regulatory frameworks. In this case, the regulatory environment amplifies the positive influence of well-trained staff on financial outcomes.
 - Resource Adequacy → Normative Factors → Budget Performance:** In contrast, the **resource adequacy** mediated by **normative factors** shows a negative effect ($\beta = -0.087$, $p = 0.015$). This finding indicates that, although resources are crucial, an overly rigid normative environment might reduce the positive impact that adequate resources have on budgeting performance.
 - Strategic Planning → Regulative Factors → Budget Performance:** For **strategic planning**, the mediated moderation effect is also negative ($\beta = -2.178$, $p < 0.001$), which suggests that while strategic planning is important, its effectiveness diminishes in the presence of overly stringent regulations. This could reflect the idea that excessive bureaucratic oversight stifles flexible, long-term financial strategies.
- These results highlight the nuanced role of governance (normative and regulative factors) in moderating the influence of institutional factors on budgeting performance. Effective governance frameworks can either enhance or inhibit the relationships between internal capabilities and financial outcomes.

Total Effects

The **total effects** combine the direct, indirect, and moderating effects to provide a holistic picture of how each independent variable (IV) influences the dependent variable (DV), which in this case is **budget performance**. The total effects help quantify the overall impact, including both mediated and unmediated pathways.

Table 10: Total Effects of Variables on Budget Performance

Variable	Direct Effect	Indirect Effect	Total Effect	Significance
Staff Capacity (CONBF)	0.476	1.984	2.456	Significant
Resource Adequacy (INSF)	0.308	-0.131	0.177	Marginally Sig
Strategic Planning (SPLF)	0.389	-1.440	-1.051	Significant
Normative Factors (NORMF)	0.213	0.665	0.878	Significant
Regulative Factors (REGF)	0.163	-1.014	-0.851	Significant
Stakeholder Participation (SKP)	0.171	-0.010	0.161	Marginally Sig

- Staff Capacity (CONBF):** The total effect of **staff capacity** on budget performance is highly significant ($\beta = 2.456$, $p < 0.001$). This includes the direct contribution (0.476) and the large indirect impact mediated by regulative factors (1.984). This suggests that both the staff's capabilities and how they interact with regulatory frameworks are critical for improving budget performance.
- Resource Adequacy (INSF):** The total effect of **resource adequacy** is relatively small but still important ($\beta = 0.177$, $p = 0.054$). This reflects the tension between the availability of resources and the mitigating influence of normative factors, which dampens the overall positive effect of resources on performance.
- Strategic Planning (SPLF):** Interestingly, the total effect of **strategic planning** is negative ($\beta = -1.051$, $p < 0.001$), due to the strong negative indirect effect (-1.440) through regulative factors. This result implies that while strategic planning is essential, excessive regulation might negate its benefits, leading to suboptimal financial management outcomes.
- Normative and Regulative Factors (NORMF and REGF):** Both **normative** and **regulative factors** show positive and negative total effects, respectively. **Normative factors** positively influence budget performance ($\beta = 0.878$, $p < 0.001$), indicating that a well-established set of norms promotes better financial management. In contrast, **regulative factors** have a negative total effect (-0.851, $p < 0.01$), suggesting that strict regulatory controls could impair flexibility in budgeting practices.
- Stakeholder Participation (SKP):** Although less significant overall, **stakeholder participation** has a small positive total effect ($\beta = 0.161$, $p = 0.05$). This implies that while stakeholders play a role, their

impact on budgeting outcomes is relatively modest compared to other factors like staff capacity and governance structures.

Discussion on Mediated Moderation and Total Effects

The results from both the **mediated moderation analysis** and **total effects** highlight the complex interplay between institutional factors (like staff capacity and resource adequacy) and external governance mechanisms (normative and regulative frameworks). This complexity reflects the unique challenges faced by Ethiopian public universities in balancing internal capacities with external pressures from regulations and norms.

- **Staff capacity** emerges as the most critical determinant of budget performance, with both direct and mediated effects playing a substantial role. Universities with better-trained staff are more likely to navigate complex regulatory environments successfully, leading to better financial outcomes.
- **Resource adequacy**, while essential, is heavily influenced by normative frameworks. Institutions that are able to align their resources with flexible and supportive norms tend to perform better financially. However, when normative environments are too rigid, the benefits of adequate resources are diminished.
- **Strategic planning**, although vital, can be undermined by excessive regulation. This finding highlights a key tension: universities must engage in strategic planning, but if their efforts are constrained by too many regulatory requirements, the positive impact of planning is diminished.
- **Normative and regulative factors** have opposite effects, with norms generally supporting better financial outcomes while regulations may hinder flexibility. This suggests that policymakers should consider balancing the need for accountability and oversight with the need for flexibility and autonomy in university financial management.

Conclusion

The mediated moderation and total effects analyses provide valuable insights into how different factors interact to influence budgeting performance in Ethiopian public universities. These findings emphasize the need for balanced governance frameworks that support internal capacities like staff training and strategic planning without imposing overly rigid controls that stifle financial innovation and efficiency. Moving forward, university administrators and policymakers should prioritize creating supportive normative frameworks while carefully evaluating the impact of regulations on financial flexibility and performance.

References (APA Style)

1. Altbach, P. G. (2015). The dilemmas of ranking in the global knowledge economy. *Higher Education in the World*.
2. Altbach, P. G., Reisberg, L., & Rumbley, L. E. (2009). *Trends in global higher education: Tracking an academic revolution*. UNESCO Publishing.
3. EUA, & World Bank. (2010). *Financing higher education in Africa*. World Bank Publications.
4. Gumpert, P. J., & Sporn, B. (1999). Institutional adaptation: Demands for management reform and university administration. *Higher Education in Europe*, 24(1), 49–64.
5. Jongbloed, B. (2004). Funding higher education: Options, trade-offs, and dilemmas. *Higher Education in Europe*, 29(2), 201–208.
6. Massy, W. F. (2003). *Honoring the trust: Quality and cost containment in higher education*. Anker Publishing Company, Incorporated.
7. Ministry of Education (MoE). (2011). *Education sector development program IV (ESDP IV) 2010/11 - 2014/15*. Addis Ababa: Federal Democratic Republic of Ethiopia.
8. Ministry of Finance and Economic Development (MoFED). (2010). *Growth and Transformation Plan (GTP)*. Addis Ababa: Federal Democratic Republic of Ethiopia.
9. Office of the Federal Auditor-General. (2012). *Annual audit report*. Addis Ababa: Federal Democratic Republic of Ethiopia.
10. Potter, B. H., & Diamond, J. (1999). *Guidelines for public expenditure management*. International Monetary Fund.
11. Rao, P.C.K., Srivastava, A.K, (2013), Indian Financial Markets: A Paradigm Shift, International Journal of Scientific and Innovative Research, Vol – 1(2), 167-189; P-ISSN 2347-2189, E- ISSN 2347-4971
12. Rao P.C.K, Rajesh, Amandeep Nahar, (2021), Organizational Behaviour, Sulatan Chand & Sons, 2021/3 1st Edition
13. Salmi, J. (2009). *The challenge of establishing world-class universities*. World Bank Publications.
14. Salmi, J., & Bassett, R. M. (2011). Opportunities for higher education development in Sub-Saharan Africa. *World Bank*.
15. Shattock, M. (2006). *Managing good governance in higher education*. Open University Press.

16. Tefera, D. (2016). Governance challenges in Ethiopian higher education: A case study of public universities. *Higher Education Policy*, 29(1), 29–50.
17. World Bank. (2010). *Financing higher education in Africa*. World Bank Publications.