

From openness to excellence: investigating transparency as a driver of effective education service delivery in Uganda's technical and vocational sector

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Abstract

Transparency is a critical determinant of accountability, trust, and effective service delivery in Uganda's Technical and Vocational Education and Training (TVET) sector, where governance challenges and information gaps can hinder institutional performance. This study examined the relationship between transparency and education service delivery within the TVET sector in Uganda. The objectives were to assess the extent of transparency in institutional processes, identify factors influencing stakeholders' perceptions of openness, and examine how transparency relates to education service delivery outcomes. A mixed-methods approach was employed, collecting quantitative data from 122 respondents, including administrators, educators, procurement staff, and policy actors within the TVET sector, using structured questionnaires, complemented by qualitative insights from semi structured interviews. The findings revealed that transparency mechanisms, such as open communication, stakeholder feedback, and clear procedural guidelines, were significant predictors of effective education service delivery, with a positive correlation between transparency and service delivery outcomes ($r = 0.572$, $p < 0.05$). However, inconsistencies in implementation and limited accessibility of information were observed across TVET institutions. The study concludes that transparency enhances education service delivery in the TVET sector when integrated with stakeholder participation and technological support. The study recommends strengthening digital transparency platforms, improving feedback mechanisms, and aligning institutional procedures with accountability standards to ensure sustainable and high-quality education service delivery in Uganda's TVET sector.

Key words: *Transparency, Accountability, Technical and Vocational Education and Training (TVET), Education Service Delivery, Governance*

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Introduction

Transparency is widely recognized as a foundational principle of good governance and effective public service delivery, particularly in public education systems where accountability, equity, and trust are essential. Globally, education governance reforms over the past two decades have increasingly emphasized transparency as a mechanism for improving institutional performance, reducing inefficiencies, and strengthening stakeholder confidence (Baker et al., 2021; Meyer et al., 2020). Transparency enables stakeholders to access relevant information, understand decision-making processes, and hold institutions accountable for their actions, thereby enhancing the quality and reliability of education services. Empirical evidence indicates that education systems characterized by open communication, clear procedures, and stakeholder participation tend to demonstrate higher levels of service effectiveness and institutional credibility (Briggs, 2018; Florini, 2018).

Uganda's Technical and Vocational Education and Training (TVET) sector occupies a strategic position in the country's socio-economic development agenda. The sector is mandated to equip learners with practical skills and competencies aligned with labor market demands, supporting industrialization, employment creation, and economic transformation as articulated in the National Development Plan III (Ministry of Education and Sports, 2020). Uganda's TVET system comprises public and private training institutions, regulatory and examining bodies, and policy actors responsible for curriculum development, assessment, certification, and quality assurance. Given its role in certifying skills and competencies, the TVET sector is inherently high-stakes, requiring transparent administrative, examination, and certification processes to ensure fairness, credibility, and public trust.

Despite the centrality of transparency to effective TVET governance, Uganda's TVET sector continues to face governance and service delivery

challenges. Studies on public sector performance in Uganda point to persistent concerns related to delayed service delivery, limited access to institutional information, inconsistent communication with stakeholders, and weak feedback mechanisms within education-related agencies (Mugabi & Muwanga, 2021; Kabwegyere & Okurut, 2022). In the TVET context, such challenges manifest in delayed dissemination of examination schedules and results, unclear procedural guidelines, and limited opportunities for stakeholder engagement. These issues have been shown to undermine stakeholder confidence, reduce perceived fairness of assessment processes, and weaken the overall effectiveness of education service delivery (Meyer et al., 2020).

Transparency is a multidimensional concept that extends beyond mere disclosure of information. Scholars conceptualize transparency as encompassing procedural transparency, informational transparency, and participatory transparency (Florini, 2018). Procedural transparency refers to the clarity, consistency, and standardization of institutional processes and decision-making rules. Informational transparency involves the accessibility, accuracy, and timeliness of information provided to stakeholders. Participatory transparency relates to the extent to which stakeholders are involved in feedback, consultation, and oversight processes. In education systems, these dimensions collectively shape stakeholder perceptions of fairness, accountability, and institutional legitimacy (Baker et al., 2021).

In the current study, transparency is operationalized through these three interrelated dimensions within Uganda's TVET sector. Procedural transparency is examined through the clarity and consistency of administrative and assessment processes, including registration procedures, examination guidelines, and procurement practices. Informational transparency is operationalized through the availability, accuracy, and timeliness of information related to examinations, certification, institutional decisions, and service timelines. Participatory transparency is assessed through stakeholder feedback mechanisms, responsiveness to inquiries, and opportunities for engagement by learners, instructors, and other stakeholders. This operationalization is informed by prior governance and education management studies that link transparency mechanisms to institutional effectiveness and stakeholder trust (Florini, 2018; Meyer et al., 2020).

Effective education service delivery, the outcome variable of this study, is conceptualized as the extent to which TVET institutions and governing structures provide timely, reliable, equitable, and user centered services that meet stakeholder expectations. In this study, education service delivery is operationalized through indicators such as timeliness of services, reliability of assessment and certification processes, clarity of communication, responsiveness to stakeholder needs, and overall satisfaction with services received. This conceptualization draws on service delivery and public management literature, which emphasizes efficiency, quality, accessibility, and accountability as core dimensions of effective public service provision (Heskett et al., 1994; Oliver, 1980).

While international and regional studies demonstrate a positive relationship between transparency and education service delivery, empirical evidence specific to Uganda's TVET sector remains limited. Existing research in Uganda largely focuses on general education outcomes, policy implementation, or governance challenges without systematically examining how transparency mechanisms influence operational service delivery within the TVET system (Mugabi & Muwanga, 2021). Moreover, available studies tend to treat transparency as a normative principle rather than an empirically measurable construct linked to concrete service delivery outcomes. This creates a critical knowledge gap, particularly given the high stakes associated with TVET assessment, certification, and skills recognition.

The motivation for the current study arises from this gap in empirical evidence and the growing importance of TVET in Uganda's

development agenda. As the government intensifies investments in skills development and vocational training, understanding how transparency shapes service delivery outcomes become essential for strengthening institutional performance and public trust. Without empirical insights into how transparency operates within Uganda's TVET sector, policy reforms and governance interventions risk being inadequately targeted or ineffective.

Therefore, this study examines the relationship between transparency and education service delivery in Uganda's TVET sector, focusing on how procedural, informational, and participatory transparency influence service delivery outcomes. By empirically operationalizing transparency and linking it to measurable service delivery indicators, the study seeks to contribute evidence-based insights to education governance discourse, inform institutional reforms, and support the development of a more accountable, responsive, and effective TVET system in Uganda.

Objectives of the Study

General Objective

To examine the influence of transparency on education service delivery in Uganda's Technical and Vocational Education and Training (TVET) sector.

Specific Objectives

- i. To determine the extent of transparency in procurement practices within Uganda's TVET sector.
- ii. To assess the influence of transparency practices on education service delivery in Uganda's TVET sector.
- iii. To establish the strength and direction of the relationship between transparency and education service delivery outcomes in Uganda's TVET sector.

Literature Review

Theoretical Review

This study is anchored in Principal Agent Theory and Institutional Theory, which together provide a robust explanatory framework for examining how transparency influences education service delivery in Uganda's TVET sector. Principal Agent Theory, developed by Jensen and Meckling (1976), explains how transparency reduces information asymmetry between principals—such as citizens, students, instructors, and government and agents, including administrators, procurement officers, and institutional managers. In Uganda's TVET sector, these agents are responsible for managing examinations, procurement, certification, and administrative processes on behalf of stakeholders. When transparency is weak, agents may act in self-interest, leading to inefficiencies, delays, or perceived unfairness in education service delivery. Conversely, transparent practices such as open procurement procedures, clear examination guidelines, and timely dissemination of results enable stakeholders to monitor institutional actions and demand accountability. In this way, Principal Agent Theory explains how transparency mechanisms align agent behavior with stakeholder expectations, thereby enhancing education service delivery.

Institutional Theory, advanced by DiMaggio and Powell (1983), complements this perspective by emphasizing that organizational practices are shaped by formal rules, policies, norms, and regulatory frameworks. Within the TVET sector, institutional arrangements such as national education policies, procurement regulations, examination standards, and reporting requirements exert pressure on institutions to conform in order to attain legitimacy. From this perspective, transparency is not merely a governance tool but also a strategic practice through which TVET institutions demonstrate compliance, credibility, and ethical conduct. Consistent application of transparent procedures strengthens institutional legitimacy, builds stakeholder trust, and improves perceptions of service quality. Together, Principal

Agent Theory and Institutional Theory explain both the operational mechanisms and the institutional conditions through which transparency influences education service delivery in Uganda's TVET sector.

Empirical Literature

Transparency in education refers to the openness and accessibility of information regarding institutional processes, decision-making, financial management, and service delivery, enabling stakeholders to understand, monitor, and evaluate institutional performance (Gupta et al., 2019). Empirical studies consistently demonstrate that transparency enhances accountability, reduces corruption, and improves service delivery outcomes in public institutions (Barasa et al., 2023; International Institute for Educational Planning [IIEP], 2024). International evidence further shows that education systems characterized by open reporting, stakeholder engagement, and accessible information are more effective in delivering timely and equitable services. For instance, transparency initiatives in Kenya, Ghana, and Nigeria have been associated with improved governance, reduced complaints, and stronger stakeholder trust in education institutions (Otieno & Kibicho, 2021; Mensah, 2019; Adesina & Oloruntoba, 2020). Similarly, digital transparency reforms in developed contexts have strengthened accountability and performance monitoring in education service delivery (Anderson & Scull, 2020).

However, studies in developing countries reveal persistent challenges, including weak institutional capacity, limited technological infrastructure, and resistance to open governance practices, which constrain transparency and undermine service delivery (Mutua & Tengeh, 2020). In Uganda, Transparency International Uganda (2024) reports that limited access to information, weak feedback mechanisms, and procurement opacity continue to affect public sector performance, including education. Despite growing recognition of transparency as a driver of accountability and service effectiveness, a critical empirical gap remains. Existing studies in Uganda largely focus on general governance issues, basic education, or higher education institutions, with limited attention to the TVET sector and even fewer studies examining how transparency practices influence education service delivery outcomes within TVET governance and examination systems. Moreover, most studies conceptualize transparency normatively rather than operationalizing it into measurable dimensions linked directly to service delivery performance.

This gap is significant because Uganda's TVET sector plays a central role in skills development, certification, and workforce readiness. Without empirical evidence linking transparency practices to education service delivery outcomes, policymakers and institutional leaders lack actionable insights to design targeted and evidence-based reforms. This study therefore addresses this gap by empirically examining procedural, informational, and participatory transparency and their relationship with education service delivery in Uganda's TVET sector.

Research Methodology

The study adopted a cross-sectional survey research design with descriptive and correlational components, using a mixed methods approach. The descriptive component enabled assessment of the extent of transparency practices, while the correlational component facilitated examination of the relationship between transparency and education service delivery outcomes at a single point in time. The use of both components ensured comprehensive analysis without implying causality.

Both quantitative and qualitative approaches were employed and integrated to enhance depth, validity, and contextual understanding. The quantitative approach enabled measurement of transparency dimensions and education service delivery indicators and facilitated statistical analysis of relationships between variables. The qualitative approach provided in-depth insights into stakeholder experiences,

perceptions, and institutional practices that could not be fully captured through numerical data alone. Integration of the two approaches allowed for triangulation of findings and strengthened the credibility of the study.

The study population comprised 135 stakeholders within Uganda's TVET sector drawn from institutions responsible for examinations, certification, administration, and education service delivery. The population size was obtained from institutional staffing and stakeholder records within the TVET system (Ministry of Education and Sports, 2023). Respondents included procurement officers, administrative staff, educators and instructors, examiners, and senior managers and policy officers. For the quantitative component, a sample of 122 respondents was determined using Krejcie and Morgan's (1970) sample size table at a 95% confidence level and a 5% margin of error. Stratified random sampling was used to ensure proportional representation across all stakeholder categories. For the qualitative component, purposive sampling was employed to select key informants, particularly senior managers and officers with direct responsibility for transparency related functions, and interviews were conducted until data saturation was achieved.

Quantitative data were collected using structured questionnaires and analyzed using SPSS, employing descriptive statistics and Pearson correlation analysis. Qualitative data were collected through semi-structured interviews and analyzed using thematic analysis. Integration of quantitative and qualitative findings occurred at the interpretation stage to provide a holistic understanding of how transparency influences education service delivery in Uganda's TVET sector.

Findings

The empirical findings of the study are presented in line with the three study objectives. Both quantitative and qualitative results are presented, beginning with descriptive analyses to establish the status of transparency and education service delivery in Uganda's TVET sector, followed by correlation and regression analyses to examine relationships among variables. Qualitative findings are integrated to provide contextual explanations and triangulate quantitative results.

Objective 1: Extent of Transparency in Procurement Practices in Uganda's TVET Sector Descriptive Analysis

Table 1: Descriptive Statistics on Transparency in Procurement Practices (N = 122)

Statement	Mean	SD
Procurement information is publicly accessible	3.82	1.00
Open communication about procurement decisions	4.24	0.98
Procedures are clear and consistently followed	3.77	1.02
Uganda's TVET encourages stakeholder feedback	4.21	1.01
Transparency improves accessibility to education	3.75	1.10

Table 1 presents stakeholders' perceptions of transparency in procurement practices within Uganda's TVET sector. Mean scores across all indicators exceed the neutral midpoint of 3.0, indicating generally positive perceptions of transparency. Open communication about procurement decisions recorded the highest mean score (M = 4.24), suggesting that stakeholders recognize deliberate efforts to share procurement-related information. Similarly, stakeholder feedback mechanisms (M = 4.21) indicate the presence of participatory transparency practices. However, relatively lower mean scores for procedural clarity (M = 3.77) and transparency-driven accessibility to education (M = 3.75) reveal implementation inconsistencies, particularly among stakeholders with limited access to institutional communication channels. These findings suggest that while transparency mechanisms exist, their reach and consistency remain uneven across the TVET sector.

Correlation Analysis of Transparency Dimensions

Table 2: Correlation among Transparency Dimensions

Variable	Information Accessibility	Open Communication	Clear Procedures	Stakeholder Feedback
Information Accessibility	1	0.61**	0.55**	0.58**
Open Communication	0.61**	1	0.63**	0.69**
Clear Procedures	0.55**	0.63**	1	0.60**
Stakeholder Feedback	0.58**	0.69**	0.60**	1

*Note: *p < 0.01

Table 2 shows the correlations among the four transparency dimensions—information accessibility, open communication, procedural clarity, and stakeholder feedback—that were operationalized in this study. All correlations are positive and statistically significant, indicating that transparency practices within Uganda's TVET sector function as an integrated system rather than as isolated components. For example, open communication is strongly associated with stakeholder feedback ($r = 0.69$), suggesting that effective information sharing promotes participation. These interrelationships confirm the internal coherence of the transparency construct and justify its use as a composite index in subsequent analyses.

Regression Analysis

Table 3: Regression of Transparency Dimensions on Overall Transparency Index

Predictor	β	t	p
Information Accessibility	0.28	3.94	<0.001
Open Communication	0.35	5.12	<0.001
Procedural Clarity	0.22	3.21	0.002
Stakeholder Feedback	0.31	4.67	<0.001

$R^2 = 0.64$

Regression results indicate that the four dimensions explain 64% of the variance in overall transparency. Open communication emerged as the strongest predictor ($\beta = 0.35$), followed by stakeholder feedback and information accessibility. These results demonstrate that transparency in Uganda's TVET sector is strongest where communication and participation mechanisms are emphasized alongside procedural consistency.

Objective 2: Influence of Transparency on Education Service Delivery in Uganda's TVET Sector

Descriptive Analysis of Education Service Delivery

Education service delivery in Uganda's TVET sector was assessed using key indicators reflecting accessibility, timeliness, reliability, responsiveness, and stakeholder satisfaction. Respondents rated statements on a five-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). Descriptive statistics were computed to establish the overall level of education service delivery.

Table 4: Descriptive Statistics of Education Service Delivery in Uganda's TVET Sector (n = 122)

Education Service Delivery Indicator	Mean	Std. Deviation	Interpretation
Timely delivery of examination and administrative services	3.87	0.78	High
Reliability of education and examination services	3.91	0.74	High
Responsiveness to stakeholder inquiries and complaints	3.69	0.83	Moderate–High
Accessibility of education-related information and services	3.42	0.89	Moderate
Consistency in service delivery across institutions	3.58	0.81	Moderate
Stakeholder satisfaction with education service delivery	3.76	0.77	High
Overall Education Service Delivery	3.71	0.80	Moderate–High

The results indicate that education service delivery in Uganda's TVET sector is rated at a moderate to high level, with an overall mean score of 3.71. High mean scores were recorded for reliability of services ($M = 3.91$) and timely delivery of examination and administrative services ($M = 3.87$), suggesting that core service functions are generally dependable and delivered within expected timelines.

Stakeholder satisfaction also recorded a relatively high mean score ($M = 3.76$), implying that most respondents perceive education service delivery as acceptable. However, accessibility of education-related information ($M = 3.42$) and consistency in service delivery ($M = 3.58$) scored comparatively lower, highlighting gaps in equitable access and uniformity across institutions.

The moderate standard deviations across all indicators indicate reasonable consensus among respondents, though variations suggest differing stakeholder experiences. Overall, the findings imply that while education service delivery in Uganda's TVET sector is functional, improvements are required particularly in accessibility and consistency to enhance effectiveness and equity.

Correlation Analysis

Table 5: Correlation between Transparency and Education Service Delivery

Variable	Education Service Delivery
Transparency	0.572**

*Note: *p < 0.01

Table 4 indicates a moderately strong and statistically significant positive correlation between transparency and education service delivery ($r = 0.572$). This suggests that higher levels of transparency in procurement and administrative processes are associated with improved service delivery outcomes, including timeliness, reliability, and accountability.

Regression Analysis

Table 6: Regression of Transparency on Education Service Delivery

Model	B	β	t	p
Constant	1.214	—	3.89	<0.001
Transparency	0.586	0.572	6.98	<0.001

$R^2 = 0.327$

Regression results show that transparency significantly predicts education service delivery, explaining approximately 33% of the variance. This confirms that transparency is not only associated with, but also contributes meaningfully to improved service delivery in Uganda's TVET sector.

Objective 3: Relationship between Transparency and Education Service Delivery across Stakeholder Groups

Descriptive Comparison

Table 6: Transparency and Service Delivery by Stakeholder Group

Stakeholder Group	Transparency Mean	Service Delivery Mean
Procurement Staff	4.15	4.18
Administrators	4.10	4.12
Educators	3.88	3.79
Policymakers	3.95	3.91

Results show higher transparency and service delivery perceptions among procurement staff and administrators, reflecting their closer interaction with operational processes. Educators and policymakers reported comparatively lower perceptions, indicating information and engagement gaps.

Correlation and Regression by Stakeholder Group

Table 7: Correlation between Transparency and Service Delivery by Stakeholder Group

Stakeholder Group	r
Procurement Staff	0.61**
Administrators	0.58**
Educators	0.49**
Policymakers	0.52**

Table 8: Regression of Transparency on Service Delivery by Stakeholder Role

Stakeholder Role	β	R²	p
Procurement Staff	0.61	0.37	<0.001
Administrators	0.58	0.34	<0.001
Educators	0.49	0.24	0.002
Policymakers	0.52	0.27	0.001

Transparency significantly predicts service delivery across all stakeholder groups, with stronger effects among those directly involved in institutional operations.

Qualitative Insights on Transparency and Education Service Delivery

Interviews with key informants provided deeper insights into how transparency practices influence education service delivery within Uganda’s TVET sector. Four dominant themes emerged.

Open Communication: Participants emphasized that timely and clear communication regarding procurement decisions, tender announcements, and examination logistics plays a critical role in enhancing service delivery. One procurement officer noted that regular dissemination of information through emails and notice boards improves coordination and accountability, although rural educators often miss updates due to limited internet access. This finding reinforces evidence that communication clarity strengthens transparency and stakeholder trust (Gupta et al., 2019; Anderson & Scull, 2020).

Stakeholder Feedback Mechanisms: Respondents highlighted that feedback channels, such as emails and suggestion boxes, contribute to identifying service gaps and improving responsiveness. However, several participants observed that these mechanisms are underutilized due to low awareness and limited follow-up. This supports findings by Barasa et al. (2023), who argue that transparency enhances service delivery only when feedback mechanisms are actively used and institutional responses are visible.

Procedural Clarity: While procurement and administrative staff demonstrated strong understanding of institutional procedures, educators and policymakers reported difficulties accessing and interpreting policy documents. This disparity suggests that procedural transparency exists formally but is unevenly communicated across stakeholder groups. Similar challenges have been documented in public education institutions in developing contexts (Mutua & Tengeh, 2020).

Accessibility and Digital Constraints: Limited digital infrastructure emerged as a major barrier to effective transparency, particularly for stakeholders in rural areas. Participants noted that reliance on online platforms without complementary offline dissemination limits access to critical information. This finding aligns with UNESCO-IIEP (2024), which emphasizes that digital transparency initiatives must be matched with infrastructure and capacity development to achieve equitable service delivery.

Overall, the qualitative findings complement the quantitative results by illustrating that transparency mechanisms are recognized and valued, but their effectiveness is moderated by communication reach, stakeholder awareness, and technological capacity.

Discussion of Findings

This study examined the influence of transparency on education service delivery in Uganda’s TVET sector, guided by three specific objectives and grounded in Principal Agent Theory and Institutional Theory. The discussion integrates quantitative and qualitative findings and situates them within existing empirical and theoretical literature.

Findings related to the first objective indicate that transparency in procurement practices within Uganda’s TVET sector is generally present but unevenly experienced. High mean scores for open communication and stakeholder feedback suggest that participatory and informational transparency mechanisms are established. These results are consistent with Principal-Agent Theory, which posits that transparency reduces information asymmetry and strengthens accountability between agents and principals (Jensen & Meckling, 1976). However, lower scores for procedural clarity and accessibility to education indicate implementation gaps, particularly among educators and policymakers. Qualitative evidence further revealed that limited access to procedural documents and digital platforms constrains transparency’s reach. These findings mirror Gupta et al. (2019), who argue that transparency improves governance only when information is accessible and comprehensible to all stakeholders.

In line with the second objective, correlation and regression analyses demonstrate a statistically significant and moderately strong positive relationship between transparency and education service delivery ($r = 0.572$, $p < .001$). Transparency explained approximately 33% of the variance in service delivery outcomes, confirming its substantive role in improving institutional performance. This finding aligns with empirical studies linking transparent governance to improved service efficiency and accountability in public institutions (Barasa et al., 2023; IIEP, 2024). Nonetheless, the unexplained variance suggests that transparency alone is insufficient to fully optimize service delivery. Institutional Theory helps explain this limitation by emphasizing the role of supporting structures, such as resources, technology, and organizational capacity, in enabling governance reforms to translate into performance outcomes (DiMaggio & Powell, 1983).

The third objective revealed that transparency positively influences service delivery across all stakeholder groups, though with varying strength. Stronger relationships among procurement staff and administrators reflect their proximity to decision-making processes, while weaker but significant effects among educators and policymakers highlight information diffusion gaps. Similar patterns have been observed in higher education and public sector studies in East Africa

Notably, transparency's contribution to accessibility to education recorded the lowest mean score, reinforcing concerns raised in the qualitative findings regarding digital exclusion and uneven dissemination. These results underscore the need for inclusive transparency strategies that extend beyond administrative centers to peripheral stakeholders.

Overall, the discussion confirms that transparency operates as both a governance mechanism and a service delivery enabler. However, its effectiveness depends on consistent implementation, stakeholder inclusion, and enabling institutional conditions.

Conclusion and Recommendations

Conclusion

The study concludes that transparency is a critical determinant of effective education service delivery in Uganda's TVET sector. Empirical evidence demonstrates that transparency particularly through open communication, procedural clarity, and stakeholder participation significantly enhances service delivery outcomes, including reliability, accountability, and stakeholder trust. These findings validate Principal Agent Theory by showing how transparency reduces information asymmetry and strengthens accountability, while also supporting Institutional Theory by highlighting the role of formal rules and norms in shaping service delivery practices.

Despite these positive effects, transparency initiatives are constrained by uneven implementation, limited digital access, and varying stakeholder engagement levels. These constraints moderate the full realization of transparency's benefits and indicate that governance reforms must be embedded within broader institutional capacity-building efforts.

Recommendations

Based on the findings, the study recommends a phased and integrated approach to strengthening transparency and education service delivery in Uganda's TVET sector. In the short term, TVET institutions should standardize and routinely publish procurement and examination information in simplified formats accessible to all stakeholders. In the medium term, stakeholder feedback mechanisms should be institutionalized through structured consultative forums and response-tracking systems to enhance accountability and responsiveness. In the long term, investments in integrated digital transparency platforms, staff capacity building, and policy harmonization are essential to sustain transparency as an institutional norm.

Oversight bodies such as the Ministry of Education and Sports and regulatory authorities should support these initiatives through consistent policy guidance and technical assistance. Future research should adopt longitudinal and comparative designs to examine how transparency reforms evolve over time and interact with other determinants of education service delivery.

1. **Procedural Clarity:** While procedures were generally understood by procurement and administrative staff, educators and policymakers sometimes faced challenges accessing and interpreting policy documents, highlighting the need for simplified, widely accessible procedural guides.
2. **Challenges in Accessibility:** Limited digital infrastructure in rural areas constrained the reach of transparency initiatives, particularly for stakeholders who rely on online updates or electronic reporting platforms.

These qualitative insights align with descriptive and correlation analyses, illustrating that transparency, while recognized as essential, requires complementary mechanisms, such as technological support, training, and inclusive dissemination strategies to fully enhance education service delivery.

Discussion of Findings

This study examined the role of transparency as a catalyst for effective education service delivery at the Uganda's Technical and Vocational Education and Training (TVET), with the discussion organized around the three study objectives. Overall, the findings provide strong empirical evidence that transparency is a critical governance mechanism that enhances accountability, institutional trust, and service delivery outcomes within public education institutions.

Regarding the first objective, which assessed the extent of transparency in procurement practices at TVET, the descriptive and inferential results indicate that transparency is both present and multidimensional. Stakeholders generally perceived transparency positively, particularly in relation to open communication about procurement decisions and the encouragement of stakeholder feedback, which recorded the highest mean scores ($M = 4.24$ and $M = 4.21$, respectively). These findings suggest that TVET has established participatory and communicative mechanisms that promote accountability and openness. Internal correlation and regression analyses further demonstrate that transparency dimensions are internally coherent and mutually reinforcing, with open communication and stakeholder feedback emerging as the strongest contributors to overall transparency. This confirms that transparency at UBTEB is not a single procedural activity but an integrated system of information sharing, procedural clarity, and engagement. These findings support Principal-Agent Theory, which argues that reducing information asymmetry between institutional agents and stakeholders strengthens accountability and improves organizational performance (Jensen & Meckling, 1976).

However, the results also reveal notable disparities in how transparency is experienced across stakeholder groups. Procurement staff and administrators reported higher transparency scores than educators and policymakers, reflecting differences in proximity to procurement processes and access to institutional information. Qualitative evidence reinforces this pattern, with educators and policymakers highlighting gaps in procedural clarity and limited access to timely information, particularly in rural contexts and among stakeholders with constrained digital connectivity. This suggests that while formal transparency policies exist, their implementation and dissemination are uneven, limiting their full effectiveness. These findings align with Gupta et al. (2019), who emphasize that transparency improves institutional oversight only when supported by effective dissemination strategies and inclusive access mechanisms.

The second objective examined the influence of transparency on education service delivery. Both correlation and regression analyses provide robust empirical support for a positive and statistically significant relationship between transparency and service delivery outcomes. The moderately strong correlation ($r = 0.572$, $p < 0.001$) and regression results indicate that transparency explains a substantial proportion of the variance in service delivery ($R^2 = 0.327$). This demonstrates that transparency is not merely symbolically important but has tangible effects on institutional efficiency, reliability, and accountability. Stakeholders reported that transparent practices reduce miscommunication, accelerate decision-making, and minimize disputes related to procurement and examination processes. For example, administrators noted that publicizing procurement procedures reduces complaints and perceptions of favoritism, thereby enhancing confidence in institutional operations.

Nevertheless, the magnitude of the relationship also indicates that transparency alone is insufficient to guarantee optimal service delivery. A significant proportion of variance remains unexplained, pointing to the influence of complementary factors such as staff capacity, financial resources, and technological infrastructure. This finding aligns with Institutional Theory, which emphasizes that organizational performance depends not only on governance norms but also on the structural

and resource conditions that enable their effective implementation (DiMaggio & Powell, 1983). Transparency, therefore, functions most effectively when embedded within a broader institutional ecosystem that supports operational efficiency.

The third objective focused on the relationship between transparency and service delivery outcomes across different stakeholder groups. Both descriptive and inferential analyses confirm that transparency positively influences service delivery perceptions among all stakeholders, although the strength of this relationship varies. Stronger effects were observed among procurement staff and administrators, while educators and policymakers exhibited weaker but still statistically significant relationships. This variation underscores transparency's relational nature: stakeholders who interact directly with institutional processes are more likely to experience and benefit from transparent practices. Conversely, stakeholders positioned further from operational centers face information diffusion gaps that moderate transparency's impact.

Notably, transparency's role in improving accessibility to education received the lowest mean score ($M = 3.75$), highlighting a critical area of concern. While stakeholders value transparency, uneven implementation and limited digital reach constrain its potential to promote equitable access. Qualitative findings identified recurring themes, including the importance of clear communication in reducing uncertainty about examinations and procurement decisions, the role of stakeholder feedback in continuous improvement, and persistent challenges related to information accessibility for rural and marginalized groups. These insights demonstrate that transparency operates not only as a procedural mechanism but also as a social and communicative process that shapes trust, engagement, and institutional legitimacy.

Across all objectives, three dominant themes emerge consistently. First, communication clarity is central to effective transparency; open, timely, and comprehensible information strengthens stakeholder trust and confidence in TVET. Second, participation and feedback enhance accountability and institutional responsiveness, reinforcing perceptions of fairness and legitimacy. Third, accessibility and implementation gaps significantly moderate transparency's effectiveness, particularly where digital infrastructure and stakeholder awareness are limited. These findings reinforce existing literature suggesting that transparency yields optimal outcomes only when supported by inclusive dissemination strategies and enabling technologies (Anderson & Scull, 2020; Gupta et al., 2019).

Overall, the integrated findings position transparency as both a governance tool and a service-delivery enabler within public education institutions. By reducing information asymmetry, strengthening accountability, and fostering stakeholder engagement, transparency contributes meaningfully to improved education service delivery at UBTEB. At the same time, contextual constraints, such as infrastructural limitations and uneven access, shape how effectively transparency translates into outcomes. Addressing these constraints through structured communication strategies, strengthened feedback mechanisms, simplified procedural guidelines, and expanded digital access would not only enhance service efficiency but also build institutional legitimacy and equity. Consequently, the study offers empirically grounded and theoretically informed insights that are transferable to similar public education institutions in developing-country contexts.

Conclusion and Recommendations

Conclusion

The study concludes that transparency is a critical catalyst for effective education service delivery within Uganda's technical and vocational education (TVET) sector. Empirical findings demonstrate that transparency mechanisms particularly open communication, procedural clarity, and structured stakeholder participation are positively and significantly associated with improved service delivery outcomes. When procurement processes, examination management, and administrative decisions are conducted openly, stakeholders develop greater confidence in institutional operations, decision-making becomes more predictable, and perceptions of fairness and accountability are strengthened. These outcomes are essential for Uganda's TVET sector, whose mandate directly affects public trust and national human capital development.

At the same time, the study reveals that transparency is not a self-sufficient solution. Despite generally positive perceptions, gaps persist in information accessibility, consistency of implementation, and the reach of digital platforms, particularly for rural and marginalized stakeholders. These challenges moderate the effectiveness of transparency initiatives and underscore the importance of complementary institutional capacities, including technological infrastructure, staff competence, and enforcement mechanisms. From a theoretical perspective, the findings reinforce Principal Agent Theory by demonstrating how transparency reduces information asymmetry and strengthens accountability relationships, while also supporting Institutional Theory by highlighting how formal rules and norms shape service delivery practices. Overall, the study positions transparency not merely as a procedural requirement but as a strategic governance tool that must be continuously embedded in institutional culture and operations to achieve sustainable improvements in education service delivery.

Recommendations

Drawing directly from the study findings, a prioritized and strategic set of recommendations is proposed to enhance transparency and education service delivery in Uganda's TVET sector.

High impact and feasible actions should focus on strengthening structured communication and disclosure practices. TVET institutions should standardize and routinely publish procurement plans, decisions, and examination-related information using clear, simplified formats that are easily understood by diverse stakeholder groups. This responds directly to observed gaps in procedural clarity and uneven access to information identified in the descriptive analysis.

Stakeholder participation and feedback mechanisms should be institutionalized as part of routine governance rather than ad hoc practices. Establishing regular consultative forums, formal feedback cycles, and response-tracking systems will ensure that stakeholder input is not only collected but also acted upon. These mechanisms operationalize the empirical finding that participation and feedback enhance accountability and service efficiency, while extending the practical application of Principal Agent Theory by strengthening oversight and trust relationships.

Systemic initiatives should emphasize innovation, capacity building, and policy alignment. Uganda's TVET sector should invest in an integrated digital transparency platform that consolidates procurement information, examination schedules, results dissemination, and financial reporting. This innovation would address recurring accessibility constraints and position the sector as a model of digital transparency in Uganda's education sector. Parallel investments in staff capacity building particularly in digital literacy, ethical communication, and data management are necessary to ensure that transparency systems are effectively utilized and sustained. Embedding these practices into

performance appraisal systems, internal audits, and compliance checks will help normalize transparency as an organizational norm rather than an externally imposed requirement.

Oversight bodies, including the Ministry of Education and Sports and the Public Procurement and Disposal of Public Assets Authority, should harmonize transparency standards across education agencies and provide consistent policy guidance and technical support. For future research, longitudinal and comparative studies are recommended to examine how transparency initiatives evolve over time and how they interact with other determinants of service delivery, such as funding adequacy, staff capacity, and political oversight. Further studies could also explore the use of emerging technologies, such as open data portals and artificial intelligence-supported reporting systems, to deepen transparency and accountability in public education governance.

In summary, enhancing education service delivery in Uganda's TVET sector requires a phased and integrated approach that combines immediate improvements in communication and disclosure with medium- and long-term investments in participation, digital innovation, and institutional capacity. Implementing these recommendations will improve operational efficiency, strengthen stakeholder trust, and contribute to broader theoretical and practical advancements in transparency driven public sector governance in Uganda.

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