



Effect of Collaboration on Service Delivery in Private Universities Offering Open and Distance Learning in Uganda

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Abstract: Purpose: Open and Distance Learning (ODL) provision has expanded rapidly among private universities in Uganda, yet empirical evidence on how collaboration among staff, departments, and external stakeholders shapes the quality of service delivery in this specific context remains limited. Most existing studies on collaboration and service delivery are drawn from general education, public-sector, or blended-learning settings, leaving the ODL-specific mechanism underexamined. This study addresses that gap by testing the effect of collaboration on service delivery among academic staff in private universities offering ODL in Uganda, net of demographic controls, and by examining the associated role of organisational culture. Design/Methodology/Approach: Anchored in Collaborative Governance Theory (Ansell & Gash, 2008), the study used a pragmatic, mixed-methods, sequential explanatory design. Quantitative data were collected through a structured questionnaire from 283 academic staff (against a target sample of 305, determined using Yamane's 1973 formula) drawn from five chartered private universities in the Kampala Metropolitan Area, using constructs adapted from the SERVQUAL model (Parasuraman et al., 1988) and the Utrecht Work Engagement Scale (Schaufeli & Bakker, 2003). Descriptive statistics, Pearson correlation, and hierarchical multiple regression were used to test the relationships among collaboration, organisational culture, and service delivery. Key informant interviews with human resource managers and IT specialists were subsequently analysed thematically to explain and contextualise the quantitative results. Findings: Collaboration was moderately-to-strongly and positively correlated with service delivery ($r = .646, p < .01$). After controlling for gender, age, education, experience, and position, collaboration alone explained an additional 42.7% of the variance in service delivery ($\Delta R^2 = .427$) and was the strongest single predictor in the model ($\beta = .639, p < .01$), for a total explanatory power of 43.9% ($R^2 = .439$). Organisational culture was also positively, though more weakly, associated with service delivery ($r = .291, p < .01$). Qualitative findings corroborated the statistical results: key informants consistently linked collaborative working to improved problem-solving, innovation, and shared accountability for service outcomes. Originality/Value: The study extends Collaborative Governance Theory beyond its traditional public-sector application to the private ODL context and provides Uganda-specific, quantified evidence on the relative contribution of collaboration to service delivery. Practical Implications: Private university managers seeking to improve ODL service quality should prioritise structural mechanisms for collaboration, such as cross-functional teams, joint planning forums, and formal partnerships with industry and government, alongside, not instead of, attention to organisational culture, given that 57.3% of the variance in service delivery remains unexplained.

Keywords: Collaboration, Service Delivery, Open and Distance Learning, Private Universities, Uganda

1. Introduction

Technological change, globalization, and the growing demand for flexible learning pathways have reshaped higher education systems worldwide. Open and Distance Learning (ODL) has become one of the principal means through which universities extend access to education,

particularly in developing countries where conventional campus-based infrastructure and prevailing

socio-economic conditions constrain participation. ODL enables institutions to reach working professionals and other non-traditional learners by using technology to deliver instruction outside the constraints of a fixed

timetable and location (Nsamba & Chimbo, 2023). Uganda, in common with the rest of Sub-Saharan Africa, has seen marked growth in the adoption of ODL models by universities seeking to widen access, promote equity, and support lifelong learning. Yet this expansion has not been matched by a corresponding improvement in the quality and consistency of the services that support it.

In the higher education context, service delivery refers to the totality of academic, administrative, and student-support processes, including teaching and learning support, administrative processing, and stakeholder engagement mechanisms, that together shape educational outcomes and stakeholder satisfaction. Empirical evidence indicates that, notwithstanding the access gains associated with ODL, institutions continue to struggle with coordination, information-sharing, and student support, all of which compromise service quality (Semwenda et al., 2025). These persistent challenges point to a need for organisational innovation capable of strengthening institutional performance and service delivery.

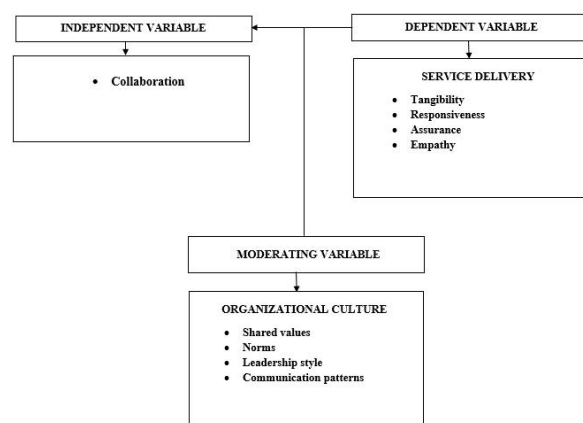
The importance of collaboration in strengthening organisational effectiveness has been increasingly recognised in contemporary higher education systems. Collaboration, understood as coordinated action among individuals, departments, and external parties toward shared goals, enables institutions to pool knowledge and resources and to innovate in how education is designed, delivered, and experienced. International policy discourse has emphasised multi-stakeholder partnerships, involving universities, industry, and government, as a mechanism for developing more responsive learning systems (OECD, 2023), while research on ODL environments specifically shows that interactive, participative collaborative practices support knowledge co-creation and enhance the learning experience (Belle, 2024). Within the African context, cooperation among institutions is increasingly framed by policymakers and higher education leaders as a strategy for improving both the quality of education and the effectiveness of service delivery, including through shared resources, joint development of educational products, and coordinated adoption of technology.

Despite this recognition, the practice of collaboration in Ugandan private universities offering ODL remains uneven, and its effect on service delivery is not yet well understood empirically. Many institutions continue to operate with disjointed organisational arrangements in which departments function with limited coordination and weak stakeholder engagement, constraining the extent to which the benefits of collaboration are realised. Three limitations characterise the existing literature on this problem. First, most empirical studies on collaboration and service delivery originate from general education, public-sector, or health-sector settings (e.g., Ansell & Gash, 2021; García-Sánchez et al., 2020;

Torring et al., 2022), and their findings may not transfer directly to the distinctive coordination demands of ODL, where teaching, learner support, and administration are often geographically and organizationally dispersed. Second, within the higher-education literature specifically, studies that address collaboration typically examine public universities or blended-learning contexts (e.g., Belle, 2024; Khalil et al., 2023) rather than private ODL providers, whose governance structures and resource constraints differ materially from public institutions. Third, much of the African-focused literature on inter-institutional collaboration (e.g., Muriithi et al., 2022; Moloro et al., 2025) is largely descriptive or qualitative, offering limited quantitative evidence of the magnitude of collaboration's effect on service delivery once other explanatory factors, such as staff demographic characteristics and organisational culture, are taken into account.

This study addresses these three gaps by using a mixed-methods, sequential explanatory design to quantify the effect of collaboration on service delivery among academic staff in five private, ODL-providing universities in Uganda's Kampala Metropolitan Area, net of demographic controls, and to assess the associated role of organisational culture. In doing so, the study extends Collaborative Governance Theory (Ansell & Gash, 2008) to a private ODL setting in which it has rarely been tested, and it contributes empirically grounded, context-specific evidence to guide university managers seeking to strengthen ODL service quality through collaboration.

Figure 1: Conceptual framework showing the relationship between collaboration and service delivery, with organisational culture as a moderating variable.



Source: adopted from Zeithaml et al. (1980), Schaufeli Edds (1010); Albrecht et al (2015), Scheneider et al. (2023),and Dewi et al. (2020) and modified by the researcher, 2024

The conceptual framework depicts collaboration as the independent variable hypothesised to affect service delivery, the dependent variable, which is operationalised using the SERVQUAL dimensions of tangibility, reliability, responsiveness, assurance, and empathy (Parasuraman et al., 1988). Organisational culture, comprising values, norms, leadership style, and communication practices, is positioned as a variable that can strengthen or weaken the relationship between collaboration and service delivery. The framework thus reflects the interplay of human, structural, and cultural factors in organisational effectiveness, consistent with the theoretical position developed below.

Theoretical Framework

The study is anchored in Collaborative Governance Theory (Ansell & Gash, 2008), which conceptualises collaboration as a structured process in which a diverse array of stakeholders jointly deliberate, make decisions, and take coordinated action toward complex

Literature Review

Collaboration and Service Delivery in Education Settings

Evidence from education settings broadly supports the proposition, central to Collaborative Governance Theory, that structured joint working improves service outcomes, though the strength of this evidence varies with method and context. Belle (2024) examined collaborative digital learning environments and found that they enhanced student engagement and responsiveness of services; because the study relied on self-reported engagement measures in a single higher-education setting, its findings are suggestive rather than generalizable, but they align directionally with the present study's focus on ODL. Using a quantitative survey design with a larger, multi-institution sample, Khalil et al. (2023) found that collaboration among faculty members in blended-learning institutions was positively associated with both instructional quality and administrative efficiency, offering stronger, comparative evidence than Belle (2024), but still outside the private ODL context this study addresses. In a related vein, Xie et al. (2023) found that knowledge-sharing enabled by collaboration was a significant driver of innovation in higher education institutions, while Babalola et al. (2024), drawing on African evidence specifically, showed that collaborative leadership styles were positively associated with innovation in educational institutions; both studies support the theoretical expectation that collaboration operates as a mechanism for organizational improvement, though neither examines service delivery as an outcome directly, a gap the present study addresses. At the level of public-sector service systems more broadly, Ansell and Gash (2021) and Torfing et al. (2022) extended collaborative governance theory to show that productive inter-organizational interaction

organisational or public issues. The theory identifies trust-building, face-to-face dialogue, and shared ownership of process and outcomes as the conditions under which collaboration translates into improved coordination and performance (Ansell & Gash, 2008; Torfing et al., 2022). Applied to private universities offering ODL in Uganda, the theory suggests that where academic staff, administrators, and support units engage in joint problem-solving and shared decision-making, institutions are better able to build a cohesive service system, make more effective use of resources, and strengthen institutional performance. The theory further implies that the benefits of collaboration are not automatic: where trust or communication is weak, collaborative arrangements may fail to produce the anticipated gains in coordination or responsiveness (Ansell & Gash, 2008). This conditionality provides the theoretical basis for treating organisational culture as a factor of interest alongside collaboration in the empirical model that follows.

improves coordination, resource use, and citizen-oriented innovation; however, both studies caution that these gains depend on functioning coordination mechanisms and are not observed uniformly, a qualification that is often omitted when their findings are cited in support of collaboration's benefits.

Collaboration and Service Delivery Beyond Education

Parallel evidence from other service sectors reinforces the theoretical logic while also illustrating its boundary conditions. In healthcare, García-Sánchez et al. (2020) found that inter-organisational cooperation between providers improved efficiency and innovation in patient care, a context in which, as in ODL, service delivery depends on coordination across dispersed actors. Lee and Trimi (2021) showed that digital collaboration networks improved responsiveness specifically under conditions of urgency, such as crisis and emergency service delivery, suggesting that the strength of the collaboration-service delivery relationship may be context-dependent rather than uniform. Wang et al. (2022) similarly found that collaboration across agencies, industry, and academia was associated with better technological integration and service personalisation in smart service systems. Within infrastructure and development settings more comparable to Uganda's institutional environment, Osei-Kyei and Chan (2023) found that effective stakeholder collaboration improved service quality and delivery efficiency in public infrastructure projects, while Muriithi et al. (2022) reported that inter-institutional collaboration among African universities improved knowledge-sharing and responsiveness, but only where resource availability and institutional systems permitted it. This last qualification is important: it indicates that collaboration's positive association with service delivery, well established across

sectors, is conditioned by the surrounding institutional environment, a point the present study returns to in interpreting the unexplained variance in its own regression model.

Barriers and Boundary Conditions of Collaboration

A smaller but important stream of literature qualifies the largely positive picture above by identifying conditions under which collaboration fails to improve, or actively undermines, service delivery. Alalwan et al. (2020) identified organisational silos, low trust, and poor communication as significant barriers to collaboration in service delivery systems, while Kamalaldin et al. (2020) showed that variation in organisational culture and governance structures across stakeholders can itself obstruct collaborative work, particularly in multi-stakeholder projects in developing-country settings. Vangen and Huxham (2021) went further, arguing that power asymmetries and diverging interests among collaborators can make collaboration actively inefficient rather than merely ineffective. Taken together, these studies suggest that the relationship between collaboration and service delivery is not unconditionally positive, and that organisational culture, treated in the present study as an associated factor rather than a formal moderator, is a plausible explanation for variation in the strength of that relationship across institutions.

Collaboration and Service Delivery in the African and Ugandan ODL Context

Evidence specific to Uganda and the wider East African ODL context remains comparatively thin and predominantly descriptive. Semwenda et al. (2025) documented service delivery challenges in Ugandan ODL provision, including weaknesses in coordination and student support, but did not quantify the contribution of collaboration to these outcomes. Moloro et al. (2025) described collaborative strategies for service delivery enhancement in East African universities in largely qualitative terms, and Muriithi et al. (2022), discussed above, likewise relied on descriptive and thematic evidence. Nsamba and Chimbo (2023) established the broader access and equity rationale for ODL expansion in Africa but did not address service delivery or collaboration directly. This body of work establishes that collaboration is recognised as important in the Ugandan and East African ODL context, but it does not establish how much of the variation in service delivery collaboration explains once other explanatory factors are taken into account, nor does it distinguish private ODL providers, whose governance and resourcing differ from public universities, as a distinct unit of analysis.

Synthesis and Research Gap

Read together, the literature converges on three points. First, across education, healthcare, infrastructure, and

public administration, collaboration is consistently associated with improved coordination, innovation, and responsiveness, providing broad support for the central proposition of Collaborative Governance Theory (Ansell & Gash, 2008; Torfing et al., 2022). Second, this relationship is not unconditional: trust, communication quality, power dynamics, and organisational culture all condition whether collaboration translates into better service outcomes (Alalwan et al., 2020; Kamalaldin et al., 2020; Vangen & Huxham, 2021). Third, empirical work that quantifies the strength of the collaboration-service delivery relationship, net of other explanatory factors, is concentrated in public-sector, healthcare, and general or blended higher-education settings; comparable quantitative evidence for private universities offering ODL in Uganda is largely absent, with existing Ugandan and East African studies remaining descriptive or qualitative (Semwenda et al., 2025; Moloro et al., 2025; Muriithi et al., 2022). This study addresses that gap directly by testing, quantitatively, the effect of collaboration on service delivery among academic staff in private ODL-providing universities in Uganda, while controlling for demographic characteristics and examining the associated role of organisational culture, and by using qualitative evidence to explain the mechanisms underlying the statistical relationship.

Methods and Materials

Research Philosophy, Design, and Population

The study was grounded in a pragmatic research philosophy, which permits the combined use of quantitative and qualitative approaches in addressing applied, real-world organisational problems. This orientation allowed objective statistical analysis of the relationships among collaboration, organisational culture, and service delivery to be complemented by participants' own interpretations of those relationships, producing a more complete account than either approach alone.

The study adopted a mixed-methods, sequential explanatory design. The quantitative strand, comprising a descriptive, cross-sectional, and correlational component, was conducted first, and its results were used to identify which relationships warranted further explanation. Descriptive analysis characterised respondents and their perceptions of collaboration, organisational culture, and service delivery; correlational and regression analyses tested the strength and significance of the relationships among these variables. The qualitative strand, conducted after the quantitative results were available, then used key informant interviews to explain and elaborate on the statistical findings, consistent with recent methodological guidance favouring complementary approaches for organisational research (Torfing et al., 2022; Belle, 2024). The cross-sectional design allowed data to be collected efficiently within a defined period.

The target population was 1,298 academic staff across five chartered private universities in the Kampala Metropolitan Area: Islamic University in Uganda (IUIU), Kampala International University (KIU), Uganda Martyrs University (UMU), Ndejje University (NU), and Uganda Christian University (UCU). Using Yamane's (1973) formula, a sample of 305 respondents was determined; 283 valid, fully completed questionnaires were retained for analysis, a response rate of 92.8%. Institutions were selected using proportional sampling to ensure fair representation relative to institutional size, academic staff were selected using simple random sampling, and key informants, comprising human resource managers and IT specialists, were selected using purposive sampling on the basis of their institutional knowledge of collaboration mechanisms and service delivery processes.

Questionnaire Development and Construct Measurement

The questionnaire was developed in three stages. In the first stage, constructs were operationalised by adapting items from established instruments rather than generating new, unvalidated measures. Collaboration was measured across its three theoretically specified sub-dimensions, joint problem-solving, shared decision-making, and stakeholder engagement, consistent with the dimensions of collaborative governance described by Ansell and Gash (2008) and operationalised in subsequent applied work (Torfing et al., 2022). Service delivery was measured using the five SERVQUAL dimensions of tangibility, reliability, responsiveness, assurance, and empathy (Parasuraman et al., 1988), adapted to the ODL administrative and academic-support context. Work engagement items, used as part of the broader staff-experience battery, were adapted from the Utrecht Work Engagement Scale (Schaufeli & Bakker, 2003). Organisational culture was measured using items covering shared values, norms, leadership style, and communication practices, consistent with the dimensions represented in the study's conceptual framework. All constructs were measured on a five-point Likert scale (1 = strongly disagree to 5 = strongly agree).

In the second stage, content validity was assessed by a panel of subject-matter experts in higher education management and research methodology, who reviewed each item for clarity, relevance, and alignment with its intended construct. The resulting Content Validity Index (CVI) exceeded the conventional acceptability threshold of 0.70 across all constructs. In the third stage, the instrument was administered in a pilot study to a sample of academic staff not included in the main study, and internal consistency was assessed using Cronbach's alpha; all constructs achieved reliability coefficients above 0.70, indicating strong internal consistency and supporting the appropriateness of the instrument for the

main data collection, consistent with recent methodological guidance on establishing instrument reliability prior to full deployment (Alalwan et al., 2020).

The key informant interview guide used in the qualitative strand was developed after a preliminary review of the quantitative data collection and was designed to probe the mechanisms underlying the collaboration-service delivery relationship, specifically how joint problem-solving, communication, and stakeholder engagement were experienced in practice by staff responsible for coordinating collaborative work. This sequencing allowed the qualitative questions to be informed by, rather than developed independently of, the constructs measured quantitatively, strengthening the integration of the two strands.

Data Collection, Management, and Analysis

Both primary and secondary data sources were used. Primary data were collected through structured questionnaires administered to academic staff and semi-structured interviews conducted with key informants. Secondary data, comprising institutional reports, government publications, and academic literature, were used to contextualise the study.

Quantitative data were analysed in SPSS at the univariate, bivariate, and multivariate levels. Descriptive statistics (means and standard deviations) summarized respondent characteristics and construct scores; Pearson correlation coefficients were used to examine bivariate relationships among collaboration, organizational culture, and service delivery; and hierarchical multiple regression was used to determine the incremental predictive value of collaboration on service delivery after accounting for demographic control variables, an approach consistent with recent empirical studies of collaboration and service outcomes (Dimitrijevska-Markoski et al., 2024). Qualitative data from the key informant interviews were analysed using thematic analysis, in which responses were coded and grouped into themes that were then compared against the significant quantitative predictors to assess convergence between the two strands, consistent with recommended practice for interpreting mixed-methods evidence on collaboration and service outcomes in education settings (Dimitrijevska-Markoski et al., 2024). This triangulation step, rather than the sequencing of data collection alone, constitutes the point of integration between the quantitative and qualitative components of the study.

Regression Model

$$Y = \beta_0 + \beta_1 Co + \varepsilon \dots\dots (1)$$

The model tests the effect of collaboration on service delivery in private universities offering ODL, where Y represents service delivery, Co represents collaboration, β_0 is the intercept, β_1 is the regression coefficient for collaboration, and ε is the error term. A hierarchical

extension of this model, presented in the Results section, additionally includes demographic control variables entered in a first block, with collaboration entered in a

Results and findings

Of the 283 valid responses analysed, descriptive statistics indicated that respondents, on average, reported moderate-to-high levels of collaboration and service

Table 1: Correlation between Collaboration and Service Delivery

		Collab.	Serv. Del.
Collab.	Pearson r	1	.646
	Sig.		.000
Serv. Del.	Pearson r	.646	1
	Sig.	.000	
	N	283	283

$p < .01$ (2-tailed). Source: Primary data, 2024.

Table 1 shows a moderate-to-strong, statistically significant positive correlation between collaboration and service delivery ($r = .646$, $p < .01$), indicating that academic staff who report higher levels of collaborative working also report higher levels of service delivery. This is consistent with the theoretical expectation, drawn from Collaborative Governance Theory, that coordinated joint working improves service outcomes (Ansell & Gash, 2008).

Table 2: Correlation between Organisational Culture and Service Delivery

		Serv. Del.	Org. Cult.
Serv. Del.	Pearson r	1	.291
	Sig.		.000
Org. Cult.	Pearson r	.291	1
	Sig.	.000	
	N	283	283

$p < .01$ (2-tailed). Source: Primary data, 2024.

Table 2 shows a positive, statistically significant, but comparatively weaker correlation between organisational culture and service delivery ($r = .291$, $p < .01$) than that observed for collaboration. The p-value

Hierarchical Multiple Regression

second block to isolate its incremental contribution to explained variance.

delivery, with construct means and standard deviations available in the full study dataset. The results of the bivariate and multivariate analyses are presented below, followed by the regression diagnostic checks and the integration of the qualitative findings.

below .01 indicates the relationship is unlikely to be due to chance, and the difference in magnitude relative to collaboration suggests that, in this sample, values, communication, and leadership practices play a supporting rather than a dominant role relative to collaboration in shaping service delivery outcomes.

Regression Diagnostic Tests

Because the validity of ordinary least squares regression estimates depends on the underlying model assumptions being reasonably satisfied, three diagnostic checks were conducted before interpreting the hierarchical regression results: a test of the normality of the regression residuals, a test of multicollinearity among the predictor variables, and a test of homoscedasticity. Normality of residuals was assessed using the Shapiro-Wilk test together with visual inspection of the normal P-P plot and histogram of standardized residuals; multicollinearity among the predictors (gender, age, education, experience, position, and collaboration) was assessed using Variance Inflation Factor (VIF) and tolerance statistics, with VIF values below 10 and tolerance values above 0.10 taken as evidence that multicollinearity did not materially distort the coefficient estimates; and homoscedasticity was assessed using the Breusch-Pagan test together with visual inspection of the scatterplot of standardized residuals against standardized predicted values.

Table 3: Hierarchical Multiple Regression of Service Delivery on Collaboration

Variable	Model 1 (B)	Model 1 (Beta)	Model 2 (B)	Model 2 (Beta)
Constant	78.783		34.739	
Gender	.117	.004	1.427	.053
Age	-.857	-.040	.232	.011
Education	-3.106	-.147	-1.163	-.055
Experience	1.381	.111	1.752	.140
Position	2.700	.251	.359	.033
Collaboration			1.515	.639
R ²	0.051		0.439	
Adj. R ²	0.034		0.427	
R ² change	0.051		0.388	
F change	2.988		190.974	
Sig. F change	0.012		0.001	
F	2.988		36.027	
Sig.	.012		<.001	

Dependent variable: Service Delivery. $p < .05$ (2-tailed). $p < .01$ (2-tailed).

In Model 1, the demographic control variables (gender, age, education, experience, and position) jointly accounted for only 3.4% of the variance in service delivery (Adjusted $R^2 = .034$; F change = 2.988, $p < .05$). Of these, only position was a statistically significant predictor ($\beta = .251$, $p < .01$); gender ($\beta = .004$), age ($\beta = -.040$), education ($\beta = -.147$), and experience ($\beta = .111$) were not significant ($p > .01$).

Model 2 added collaboration, which accounted for an additional 42.7% of the variance in service delivery

($\Delta R^2 = .427$), bringing the total explanatory power of the model to 43.9% ($R^2 = .439$). Collaboration was a significant positive predictor of service delivery ($\beta = .639$, $p < .01$), and its standardised coefficient was substantially larger than that of any demographic variable, indicating that, among the variables measured, a collaborative work environment characterised by open exchange of ideas and joint problem-solving is the dominant correlate of stronger service delivery in this sample.

Table 4: ANOVA and Coefficients for Collaboration and Service Delivery

Model	Sum of Sq.	df	Mean Sq.	F / Sig.
Regression	17724.237	1	17724.237	200.890/.000 ^b
Residual	24792.286	281	88.229	
Total	42516.523	282		

a. Dependent variable: Service Delivery. b. Predictors: (Constant), Collaboration.

Model	B	Std. Error	Beta	t / Sig.
(Constant)	38.316	2.935		13.053/.000
Collaboration	1.531	.108	.646	14.174/.000

a. Dependent variable: Service Delivery.

The ANOVA results confirm that the bivariate regression model is highly significant ($p < .001$), indicating that a meaningful share of the variance in service delivery is accounted for by collaboration alone. The resulting model equation is $Y = 38.316 +$

$1.531(\text{Collaboration})$, where the intercept (38.316) represents the expected level of service delivery in the theoretical absence of collaboration, and the slope (1.531) indicates that each one-unit increase in collaboration is associated with a 1.531-unit increase in

service delivery, net of no other controls. This bivariate model explains 41.7% of the variance in service delivery ($R^2 = .417$), consistent in direction and magnitude with the 43.9% explained by the full hierarchical model reported in Table 3.

Hypothesis Testing

The null hypothesis (H_{03}) stated that collaboration has no significant effect on service delivery in private universities offering ODL. The results in Tables 3 and 4 show a positive and statistically significant relationship between collaboration and service delivery ($\beta = .639$, $p < .01$), and the null hypothesis is therefore rejected. This indicates that a collaborative working environment, characterized by joint problem-solving, shared decision-making, and stakeholder engagement, is associated with measurably better service delivery outcomes among academic staff in the sampled institutions.

Integration of Qualitative Findings

The quantitative results were corroborated by the qualitative findings from the key informant interviews. All key informants agreed on the importance of collaboration for improving service delivery, and the themes emerging from their responses aligned closely with the collaboration sub-dimensions measured quantitatively, namely joint problem-solving, shared responsibility, and stakeholder engagement. One human resource informant observed that when departments and individuals collaborate, they draw on each other's strengths and experience, which improves problem-solving and innovation in service delivery and, in turn, the experience of students and other stakeholders. A second informant, an IT specialist, similarly noted that prioritizing collaboration fosters shared responsibility and accountability, producing more cohesive and integrated service delivery by drawing on diverse perspectives and expertise.

This convergence between the statistical and qualitative evidence strengthens confidence in the study's central finding while also pointing to its limits: informants did not describe collaboration as a substitute for institutional structures, but as a practice that functions best within a supportive organizational culture, a qualification consistent with the comparatively weaker, though still significant, correlation between organizational culture and service delivery reported in Table 2.

Discussion

The results provide empirical support for the importance of collaboration in improving service delivery in private universities offering ODL. The correlation analysis showed a moderate-to-strong, statistically significant relationship between collaboration and service delivery ($r = .646$, $p < .01$), and the hierarchical regression confirmed that collaboration was a significant predictor of service delivery ($\beta = .639$, $p < .01$) accounting for a

substantial share of explained variance ($R^2 = .439$) after demographic controls. Together, these results indicate that teamwork, shared decision-making, and effective communication among the various components of the institution are important levers for improving institutional efficiency and responsiveness.

These findings are broadly consistent with the higher-education literature reviewed above. Belle (2024) found that collaborative digital learning environments enhanced the responsiveness and engagement of services in higher education, consistent with the present study's finding that collaboration positively affects service delivery in the ODL context. Khalil et al. (2023) similarly found that collaboration among academic staff enhances instructional quality and reduces administrative inefficiency, a pattern corroborated by the present results. The findings also support the propositions of Collaborative Governance Theory as extended by Ansell and Gash (2021) and Torfing et al. (2022), who showed that collaborative working enhances coordination, resource use, and innovation in service delivery systems; the present study extends this evidence to a setting, private ODL provision in Uganda, in which the theory had not previously been tested quantitatively.

The results also align with evidence from outside the education sector, suggesting that the mechanism linking collaboration to service delivery is not specific to higher education. García-Sánchez et al. (2020) and Lee and Trimi (2021) reported efficiency and innovation gains in service delivery attributable to increased communication and real-time coordination, consistent with what was observed in the universities studied here. The positive coefficient of collaboration in this study is also consistent with Wang et al. (2022), who found that efficient, user-centric service systems depend on multi-stakeholder collaboration, and with Muriithi et al. (2022), whose qualitative account of inter-institutional collaboration in African universities, generating synergy in knowledge-sharing and service response through coordination, teamwork, and joint problem-solving, closely matches the qualitative themes identified among the present study's key informants.

Some aspects of the findings diverge from, or qualify, the wider literature. Although the present results indicate a strong and direct effect of collaboration on service delivery, other studies suggest that this relationship is conditional. Alalwan et al. (2020) and Kamalaldin et al. (2020) identified organisational silos, low trust, and cultural differences as factors that reduce the effectiveness of collaboration, and Vangen and Huxham (2021) showed that power differentials and competing stakeholder interests can make collaboration inefficient. The present quantitative model, which measures the average strength of the collaboration-service delivery relationship across the sample, is not designed to detect

these boundary conditions directly; the comparatively large unexplained variance in the model (57.3%; $R^2 = .439$) is consistent with the possibility that such conditioning factors, alongside others not measured in this study, account for a meaningful share of the variation in service delivery not attributable to collaboration itself. The weaker, though still significant, correlation between organizational culture and service delivery ($r = .291$, $p < .01$) offers partial support for this interpretation, suggesting that culture may operate as one such conditioning factor rather than as a primary driver in its own right.

Theoretical Implications

The findings extend Collaborative Governance Theory (Ansell & Gash, 2008) in two respects. First, they demonstrate that the theory's central proposition, that structured collaborative processes improve coordination and outcomes, holds in a private, ODL-providing university context that differs materially from the public-sector and general education settings in which the theory has typically been applied and tested. Second, the comparatively weak correlation between organisational culture and service delivery, relative to the strength of the collaboration-service delivery relationship, suggests that in this setting, collaboration operates as a more direct driver of service outcomes than the surrounding cultural conditions that the theory treats as facilitating factors. This refines, rather than contradicts, the theoretical framework: it suggests that in resource-constrained private ODL settings, the presence of collaborative structures and practices may matter more than the broader cultural environment in which they are embedded, at least in the early stages of institutionalizing collaborative governance.

Practical Implications

For university managers, the magnitude of collaboration's effect on service delivery, relative to demographic factors and organisational culture, suggests that structural interventions to institutionalise collaboration are likely to yield greater returns than interventions targeted narrowly at staff demographic composition. Concretely, this could include establishing cross-functional teams that combine academic, administrative, and technical staff around specific ODL service processes; creating regular joint planning forums between departments involved in ODL delivery; and formalizing partnerships with external stakeholders such as industry and government bodies, consistent with the qualitative theme of stakeholder engagement identified in this study and with international policy guidance on multi-stakeholder partnership in higher education (OECD, 2023). Because organisational culture remains significantly, if more weakly, associated with service delivery, these structural interventions should be paired with attention to communication practices and

leadership style rather than treated as substitutes for cultural change.

Conclusion and Recommendations

Conclusion

This study set out to test the effect of collaboration on service delivery among academic staff in private universities offering ODL in Uganda, net of demographic controls, and to examine the associated role of organisational culture. Collaboration was found to be a significant, moderate-to-strong predictor of service delivery, explaining substantially more variance than staff demographic characteristics or organisational culture. Qualitative evidence from key informants corroborated this result, attributing improvements in problem-solving, innovation, and shared accountability directly to collaborative working practices. Together, the quantitative and qualitative findings support the study's central claim: collaborative work, both within and across departments, is an important and largely under-institutionalized lever for improving ODL service quality in Uganda's private university sector.

Contribution to the Literature

The study contributes to the literature in three ways. First, it provides quantitative, context-specific evidence on the collaboration-service delivery relationship in private ODL provision in Uganda, an area previously addressed mainly through descriptive or qualitative accounts. Second, it extends Collaborative Governance Theory (Ansell & Gash, 2008) to a private ODL setting in which it had not previously been tested empirically, showing that the theory's central proposition holds outside its traditional public-sector application. Third, by combining hierarchical regression with thematic qualitative analysis, the study demonstrates empirically how collaboration operates alongside and appears to outweigh organisational culture as a correlate of service delivery in this setting, a distinction that has not been clearly established in the existing literature.

Limitations of the Study

- The cross-sectional design captures relationships at a single point in time and cannot establish the direction of causality between collaboration and service delivery.
- The sample was drawn from five private, chartered universities in the Kampala Metropolitan Area; findings may not generalise to public universities or institutions outside this area.
- Both constructs relied on self-reported perceptions, which are susceptible to common-method bias; triangulation with qualitative interviews mitigates, but does not eliminate, this limitation.

- The model explained 43.9% of the variance in service delivery, leaving 57.3% unexplained by factors such as technology infrastructure, funding, and leadership, which were not measured.

Recommendations for Practice

Interdisciplinary cooperation among faculty members across departments in private universities in the Kampala Metropolitan Area should be actively promoted, so that diverse perspectives are brought to bear on the design and delivery of ODL programmes in a way that supports a holistic approach to teaching and learning. Management in these institutions should also strengthen cooperation with actors outside the university, including industry professionals, government bodies, and other education stakeholders, to improve the relevance, quality, and responsiveness of ODL programmes and the services that support them.

Recommendations for Future Research

- Adopt longitudinal or quasi-experimental designs to test whether the collaboration-service delivery relationship observed here is causal.
- Test organisational culture as a formal moderator of the collaboration-service delivery relationship using interaction terms.
- Extend the sample to public universities and private ODL providers outside the Kampala Metropolitan Area to assess generalizability.
- Examine additional explanatory variables, such as technology infrastructure, funding adequacy, and leadership style, to account for unexplained variance.

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