

Procurement budgeting and quality of service delivery in the Ministry of Education and Sports. A cross-sectional study.

*Jaden Frank Baba, Richard Ssemanda., Salongo Katerega**
School of Graduate Studies and Research, Team University.

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Abstract.

Background.

Effective procurement budgeting is essential for the timely acquisition of goods and services; however, public entities often experience budget ceilings, delayed releases, and unpredictable funding, which may undermine service delivery. This study examined the influence of procurement budgeting on the quality-of-service delivery in the Ministry of Education and Sports (MoES) of South Sudan.

Methodology.

A case study design was used where quantitative and qualitative approaches were adopted on a population of 89 subjects consisting of accounting officers, contracts committee members, user department heads, heads of units and sections, and PDU staff. The study used purposive and census sampling. Data was collected using questionnaires, interviewing respondents, and documentary review approaches. This was analyzed using descriptive statistics, correlation, and regression analyses.

Results.

Respondents were predominantly male (72.9%), with 57.1% holding university degrees. Procurement budgeting practices revealed strengths such as the preparation of annual work plans (Mean = 3.87) and integration of procurement plans into sector expenditure programs (Mean = 3.94). Service delivery was rated low on tangibility and reliability, with mean scores for physical facilities (2.10), communication materials (2.10), timely services (1.96), and supplier reliability (2.10). Correlation results revealed a moderate positive relationship between procurement budgeting and service delivery ($r = 0.355$, $p = 0.003$). Regression analysis showed that procurement budgeting predicted 11.3% of the variance in service delivery (Adjusted $R^2 = 0.113$).

Conclusion

The study revealed that Procurement budgeting had a moderately significant relationship with the quality of service delivery.

Recommendation.

The MoES and other PDEs in their procurement budgeting should: In view of the limited resources, priorities should be clearly set out and adhered to in each financial year in the entity.

Keywords: *Procurement budgeting, Service delivery, Ministry of Education and Sports, Procurement planning, South Sudan.*

Submitted: November 12, 2025 **Accepted:** December 01, 2025 **Published:** January 02, 2026

Corresponding Author: *Salongo Katerega**

Email: *salongokaterega262@gmail.com*

School of Graduate studies and research, Team University.

Background.

Effective procurement budgeting is central to ensuring quality service delivery in public sector institutions. Procurement planning typically begins during the budgeting process, where departments outline resource needs for the financial year. When properly coordinated, this process helps organizations identify common procurement requirements, reduce costs, and improve efficiency (Thai, 2004; Lyson, 2006). However, challenges such as delayed procurement, inadequate funding, and poor coordination often undermine service delivery. Budgeting also plays a

broader organizational role by setting performance expectations, allocating resources, and guiding implementation of strategic plans (Bhimani et al., 2008; Mintzberg, 1983). Differences in how managers interpret and use budget information can affect motivation, accountability, and overall organizational performance (Lukka, 1988; Emmanuel et al., 1991). While budgets are intended to support planning, control, and evaluation, inconsistencies between intended and actual use often limit their effectiveness.

In the public sector, compliance with budget regulations is essential. Procurement laws, such as the PPDA Regulations (2003), require entities to initiate procurement only when funds are available. Despite this, many public institutions, including those in education, experience budget shortfalls that delay projects, compromise quality, and disrupt service delivery. Similar challenges have been observed internationally, where funding gaps have led to stalled infrastructure and reduced quality of public services (World Bank, 2009; WHO, 2000). Furthermore, misaligned or inflated budgets may create opportunities for misuse of funds, weakening the credibility of procurement planning (Matechak, 2011). Although government ministries approve procurement budgets, many still operate outside their allocations, raising concerns about the effectiveness of budgeting practices. Within the Ministry of Education and Sports, these issues highlight a critical need to examine how procurement budgeting affects the quality of service delivery and whether current practices support the ministry's mandate to provide efficient and reliable education services. This study examined the influence of procurement budgeting on the quality-of-service delivery in the Ministry of Education and Sports (MoES) of South Sudan.

Methodology.

Research design.

The study used a cross-sectional case study design where both quantitative and qualitative approaches were adopted in this study of procurement planning and quality of service delivery in the public sector. The quantitative approach was used to quantify findings on the study variables using frequencies, mean, standard deviation, correlation, and regression, while the qualitative approach was used to draw an explanation of the study findings on the variables and their relationships.

Population of Study.

The study was carried out on a population of 89 subjects in the MoES in South Sudan, consisting of accounting officers, contracts committee members, user department heads, heads of units and sections, and procurement and disposal unit staff. This population was chosen based on the relevant experiences they possess in public planning practices and quality of service delivery in the Ministry in their different managerial positions.

Sample size and selection.

The sample size included 73 respondents based on Krejcie and Morgan's (1970) sampling guidelines. Table 1 shows the summary of the sample size of the respondents and the sampling techniques and instruments to be used in the study.

Table 1: Sample size of the respondents

Population category	Accessible population	Sample size	Sampling Techniques
Accounting Officer	1	1	Census
Contracts' committee	5	5	Census
Heads of Department-HOD	12	10	Purposive
Assistant HOD	12	10	Purposive
Heads of Units-HoU	20	18	Purposive
Deputy HoU	27	17	Purposive
Procurement and Disposal Unit	6	6	Census
Budget officers	6	6	Census
Total	89	73	

Source: MoES Staff payroll as of November 2023.

Sampling techniques and procedures.

The study used purposive and census sampling. In using census sampling, the researcher aimed at having total representation, while purposive sampling was used to select respondents who are most knowledgeable and experienced in procurement planning and quality of service in the Ministry.

Data Collection Methods.

The study ensured that both qualitative and quantitative data were collected. There are different methods of data

collection, but this study used the survey method using the questionnaire, interviews, and documentary review approaches.

Questionnaire Survey method.

The questionnaire was used on heads of departments, Assistant heads of departments, and heads of units, based on the fact that variables could not be observed, such as views, opinions, perceptions, and feelings of the respondents on procurement planning and quality of service delivery aspects of responsiveness and reliability (Amin, 2005). The

questionnaire was also used because respondents could read and write the questions, and the respondents were believed to possess the information to answer the questions or items, and were willing to answer the questions honestly. It was thought to be less expensive for data collection (Amin, 2005). The respondents recorded their answers within closely defined alternatives. The questionnaire was administered by the researcher, personally delivering it to the selected respondents in their offices in the MoES.

Interview method.

The interviews were structured to comprise a set of issues on which the researcher wished to draw data, and the same questions were posed to the respondents using a guide to conduct the interview. They were administered to the Accounting officers, contracts committee, procurement and disposal unit, and Budget officers.

Documentary review method.

Document analysis involved reviewing existing published and unpublished information relating to procurement planning and service delivery. The researcher used journals, procurement manuals, magazines, manuals, reports, the Internet, newspapers, conference proceedings, and abstracts related to procurement planning and service delivery in the MOES.

Data Collection Instruments.

The study used a questionnaire, interview schedule, and document checklist for data collection.

Self-Administered Questionnaire.

A uniform self-administered closed-ended questionnaire encompassing background information, procurement planning, and quality of service delivery was developed and used. The choice of the questionnaire was based on the assumption that the respondents could read and write the answers, that the respondents possessed the information to answer the questions or items, and were willing to answer the questions honestly. The questionnaires can be used to

collect a vast amount of data from a large sample in a short time and at a low cost (Amin, 2005).

Interview Guide.

Face-to-face discussions on questions posed with the accounting officer, contracts committee members, 3 budget officers, and the head of the PDU were conducted, of which the researcher recorded the responses on procurement planning and quality of service delivery in the Ministry.

Documentary review checklist.

Document analysis involved reviewing procurement plans and reports, coupled with quality of service, to gain secondary information on the study variables to complement the primary data.

Data collection procedure.

A cover letter was obtained from the Team University. In addition, permission to conduct the study was sought from the management of the MoES to authorize the study. Anonymity and confidentiality of the respondents were maintained by not asking the respondents to write their names on the questionnaires. The covering letter from Team University was used during the data collection process. The data collected was edited, coded, and later entered into SPSS for analysis.

Validity and reliability.

Pre-testing was conducted to establish the reliability and validity of the study instrument.

The study questionnaire was pilot tested on a sample of 15 members of staff in the Ministry of General Education and instruction, without disclosing that this was to be the case study of the research.

Validity of the study instrument.

The validity of the instrument was tested using the Content Validity Index (CVI) using expert judgment, taking only variable scoring above 0.70 accepted for Social Sciences (Amin, 2005). The CVI will be measured using the formula:

$$CVI = \frac{\text{Number of items declared valid}}{\text{Total number of items}}$$

Table 2: Content Validity Index Results.

Variable	Total No of items	Number of valid items	CVI
Specification of requirements	9	7	0.78
Supplier selection	10	8	0.80
Procurement budgeting	07	05	0.71
Quality of service delivery	15	11	0.73

Source: Expert Judgments.

Table 2 shows that specification of requirements yielded a CVI of 0.78, supplier selection yielded 0.80, procurement budgeting yielded a CVI of 0.71, while quality of service delivery yielded a CVI of 0.73. Since all variables yielded a CVI above 0.70, accepted for social sciences, it was concluded that the instrument had good validity. Thus, consistently measured what it was supposed to measure.

Reliability of the study instrument.

The internal consistency (reliability) of the instrument was measured using Cronbach’s alpha coefficient, taking only variables with an alpha coefficient value of more than 0.70 accepted for social research (Amin, 2005), generated from SPSS.

Table 3: Reliability results

Variable	Total No of items	Cronbach’s Alpha
Specification of requirements	9	0.71
Supplier selection	10	0.86
Procurement budgeting	7	0.72
Quality of service delivery	15	0.70

Source: Primary data.

Table 3 shows that specification of requirements yielded a Cronbach’s alpha value of 0.71, while supplier selection yielded a Cronbach’s alpha value of 0.86, procurement budgeting yielded a Cronbach’s alpha value of 0.72, and quality of service delivery yielded an alpha value of 0.70. Since all variables yielded alpha values above 0.70, which is accepted for social sciences, it was concluded that the instrument was reliable in measuring procurement planning and quality of service delivery.

Data Analysis.

Quantitative Analysis.

Quantitative data were analysed using frequencies, percentages, means, and standard deviations, and correlation analysis to show the relationships. On the other hand, regression analysis was used to show the relationship between the independent variables and the dependent variable. Pearson’s correlation coefficients and significance were used to identify the significance levels to test the hypotheses at the 99% and 95% confidence levels in the correlation analysis. A correlation coefficient of between 0 and 0.30 shall imply a weak correlation, 0.31 and 0.60 suggest a moderate relationship, while a correlation between 0.61 and 80 suggests a high relationship, and 0.81 to 0.99 suggests a very high relationship. The adjusted R², t values, beta, and significance values were used to measure the influence of the independent variables on the dependent variables in the regression analysis. Closed-ended responses were coded and entered into the SPSS program, which was used to analyze the data using frequencies, percentages, means, standard deviations, and correlation analysis to show the relationships. On the other hand, regression analysis was used to show the influence of the independent variable on the dependent variable. The descriptive method was used to analyze background information about respondents.

Correlation analysis was used to establish the relationships between different variables of the study.

The correlation technique is used to analyze the degree of relationship between two variables. There are various types of correlations that are normally used; the choice of which type depends on whether the variables are discrete or continuous or whether the scale of measurement is nominal or ordinal (Mugenda & Mugenda, 1999).

Since the researcher wanted to find out the magnitude of the relationship between the different types of variables under the study, the correlation coefficient was used to give direction on how the variables are related in order to draw meanings and be able to give conclusions. If the correlation coefficient is positive, it means there is a positive relationship between the two variables, and a (-) relationship means that the two variables being measured are inversely related (Kothari, 2004).

Qualitative Analysis.

For qualitative analysis, the researcher was interested in analyzing information in a systematic way to come to some useful conclusions and recommendations. In qualitative studies, researchers obtain detailed information about the phenomenon being studied and then try to establish patterns, trends, and relationships from information gathered (Mugenda & Mugenda, 2003). The researcher used interview guides with key personnel in the ministry to give detailed information drawn from the variables of the study to help supplement the quantitative data.

Qualitative data analysis involved the identification and transcription of the qualitative findings into themes. The themes on each of the variables used were then coded, sorted, and aligned to the research objectives, from which lessons learnt on procurement planning and quality of service attributes were deduced for reporting in a narrative form.

Measurement of variables.

The variables were measured by operationally defining procurement planning and quality of service delivery. These were then channeled into observable and measurable elements to enable the development of an index of the concept using a five Likert scale, namely: 5-Strongly agree; 4- Agree; 3- Not sure; 2- Disagree; 1- Strongly disagree, which were used to measure both the independent and dependent variables.

Results

Response rate

A total of 73 questionnaires were distributed, and 70 useable questionnaires were returned, giving a response rate of 96% which is a high response rate, suggesting that the results obtained contain substantial and reliable information.

Characteristics of respondents.

This section gives the characteristics of the respondents using cross-tabulation in relation to gender, position in relation to procurement, level of education, and length of service in the MOGEI. This is based on the information provided on the questionnaire by the respondents themselves.

Table 4: Distribution of gender by position of the respondents in relation to procurement function in the MOGEI.

			Gender		Total
			Male	Female	
Position	Contract committee	Count	2	1	3
		% of Total	2.9%	1.4%	4.3%
	Head of the user department	Count	4		4
		% of Total	5.7%		5.7%
	Procurement and disposal unit	Count	4	2	6
		% of Total	5.7%	2.9%	8.6%
	Head of section	Count	27	10	37
		% of Total	38.6%	14.3%	52.9%
	Others	Count	11	3	14
		% of Total	15.7%	4.3%	20.0%
	Budget	Count	3	3	6
		% of Total	4.3%	4.3%	8.6%
Total		Count	51	19	70
		% of Total	72.9%	27.1%	100.0%

P ≤ 0.05 Pearson's Chi-square = 3.481^a, p = 0.626 Source: Primary data

Table 4 shows that 72.9% of the respondents were male, while the females constituted 27.1% of the respondents. Pearson's Chi-square statistics revealed that there was no significant difference between gender and position (Chi-square = 3.841^a, p = 0.626), suggesting that both genders

were equally distributed among the different positions in the Ministry. This finding suggested that the responses were from diverse positions held in the Ministry and, therefore, a fair representation of the procurement entity under study.

Table 5: Distribution of gender by level of education of the respondents

			Gender		Total
			Male	Female	
Education	Diploma	Count	4	2	6
		% of Total	5.7%	2.9%	8.6%
	Degree	Count	30	10	40
		% of Total	42.9%	14.3%	57.1%
	Post graduate	Count	14	4	18
		% of Total	20.0%	5.7%	25.7%
	Others	Count	3	3	6
		% of Total	4.3%	4.3%	8.6%
Total		Count	51	19	70
		% of Total	72.9%	27.1%	100.0%

P ≤ 0.05 Pearson's Chi-square = 2.015^a, *p* = 0.569
 Source: Primary data.

Table 5 shows that 57.1% of the respondents had attained a university degree level of education, while 25.7% had attained a postgraduate education. 8.6% had attained a diploma or other qualifications other than those mentioned. Pearson's Chi-square statistics revealed no significant difference between gender and education level (Chi-square = 2.015^a, *p* = 0.569), suggesting that one's gender had no bearing on the level of education of the staff in the MOGEL. This finding suggested that the respondents were fairly educated staff who understood procurement planning and quality of service delivery in the Ministry by virtue of their fairly good education level.

The relationship of procurement budgeting and quality of service delivery in the Ministry of Education and Sports.

The objective of the study was to assess the influence of procurement budgeting on the quality of service delivery in the Ministry of Education and Sports. Procurement budgeting was conceptualized to include budget allocations and budget releases measured using 10 items scored on a five-point Likert Scale ranging from (5) for strongly agree, (4) for agree, (3) for not sure, (2) for disagree, (1) for strongly disagree, and the findings are presented below using mean and standard deviation statistics.

Table 6: Mean and Standard deviation results for procurement budgeting results.

Procurement budgeting items	Mean	S.D
1. All User Departments in the MoES prepare a work plan for procurement based on the approved budget, which they submit to the PDU for implementation	3.87	1.24
2. All User Departments in the MoES prepare a multi-annual, rolling work plan for procurement based on the approved budget to facilitate the orderly execution of annual procurement activities	1.77	1.14
3. The MoES procurement plan is integrated into the annual multiannual sector expenditure programmes to enhance financial control over procurement budgets	3.94	1.09
4. The MoES PDU uses the combined work plan to plan and schedule the Ministry's procurement activities for the financial year.	3.83	1.32
5. The MoES ensures that payments to a provider anticipated to last more than one financial year are provided for in the budget estimates for the appropriate year to support the procurement during the subsequent years.	1.87	1.19

6. The accounting officer always ensures that sufficient funds are budgeted for framework contracts every financial year, to cover the full cumulative cost of call-off orders.	3.59	1.31
7. Funds are always available for budgeted procurement activities throughout the financial year	2.16	1.39

Source: Primary Data

Table 6 shows that the respondent indicated that all user departments in the MoES prepared a work plan for procurement based on the approved budget which they submitted to the PDU for implementation (Mean = 3.87) while they also agreed that the MoES procurement plan was integrated into the annual and multi-annual sector expenditure programme to enhance financial control over procurement budgets (Mean = 3.94). It was also indicated that the MoES PDU used the combined work plan to plan and schedule the Ministry’s procurement activities for the financial year (Mean =3.83), while there was agreement that the accounting officer always ensured that sufficient funds were budgeted for framework contracts every financial year to cover the full cumulative cost of call-off orders (Mean =3.59). The development of work plan, integrating of procurements, and a combined work plan and scheduling of procurements in the financial year should be commended as it does not only enable establishment of the total acquisition portfolio of the entity but also is in compliance with the PPDA 2003 Regulation 96-102 which require provision of user department annual work plans, aggregation of requirements and procurement of items in common use. However, respondents indicated that the user departments in the MoES did not prepare a multi-annual rolling work plan for procurement based on the approved budget to facilitate orderly execution of annual procurement activities (Mean = 1.77). The respondents disagreed with the position that the MoES ensured that payment to a provider anticipated to last more than one financial year, is provided for in the budget estimates for the appropriate year to support the procurement during the subsequent years (Mean = 1.87) while they also disagreed that funds were always available for budgeted procurement activities throughout the financial year (Mean =2.16). The failure to prepare multi-annual project procurement budgets and ensure that procurement funds are available constrains the procurement system, especially with the position that a good plan is as good as nothing if funds are released late for the procurement. In an interview with the accounting officer, he said that: *Currently, we adequately make procurement budgets, but we are constrained by the budget ceilings provided by the MoFPED. We also experience unforeseen needs emerging, leading to encroachment on other activities’ budgets while compromising other acquisitions. We are devastated by the unreliable release of funds from the MoFPED to carry out our planned procurement activities in the financial year. All I can say is that procurement budget releases are not only*

late but are also highly unpredictable. For example, in the FY 2022/2023, only 50% of the fourth quota was released by the MoFPED.”

A head of a PDU noted that:

“All departments produce procurement budgets, but we have experienced cases of under-budgeting due to ceilings, which push us to procure fairly low-quality products that fit in the available funds. The PDU has noted that some user departments do not adequately plan for their procurements and end up requisitioning unplanned activities, leading to placing supplementary budgets that are not forthcoming. The consequence of this has been the reallocation of funds, thereby straining the implementation of earlier planned activities. Activities that slip over one year, especially in construction, are not catered for since we make only annual budgets. Other economic factors like inflation and economic downturns tend to bite into the budgets, which leads to less output. For example, a plan to construct ten schools may be strained by implementation due to loss of currency value, leading to few schools constructed.” He further noted that: *“Even when we plan, the releases are not sufficient in terms of value and timing, which affects service delivery.”*

In an interview with the budget officer from the Secondary School Department, the respondent said that:

“We use output-based budgeting where funds are allocated based on the expected outputs. These outputs are linked to work plans, which are closely linked to annual procurement plans. The budgeting is also based on the demonstrated needs of the department. Although this is true, needs out run the financial provisions, leading to scaling down of activities, budget cuts, and removal of unfunded priorities, which in themselves affect the quality of service delivery. We also experience late budget releases, leading to users not receiving their requirements in time. Construction projects have suffered from the spillover effects, which are not planned for in the new year, leading to funding unplanned activities in the previous year. The consequence has been encroaching on the funds for current activities to fund previous year activities. In the ministry, we have noted that Poverty Action Fund (PAF) items receive 100% release of funds, but none PAF items do not enjoy this privilege yet these activities tend to go hand in hand for example school construction can only proceed with a consultant’s intervention thereby delaying the project implementation while soliciting funding for the consultant which is a none PAF item. Failure to fund the consultant will lead to poor

monitoring of the project, which compromises the quality of projects.”

In an interview with the budget officer from the TVET (Technical, Vocational Education Training) Department, the respondent said that:

“We identify needs which dictate our budget, but for example, we budget for 10 billion, but in the budget working group, we are allocated 7 billion due to budget ceilings, and prioritizing becomes a problem, and since output-based budgeting depends on outputs, outputs are reduced, and this affects the quality of service delivery. We are faced with unpanned activities as a result of unforeseen emergencies, for example, digging new latrines at schools because old ones are filled up. Another example is that of enrollment of more students than planned for and also political interference, for example, presidential pledges that were not planned for and yet have to be fulfilled.”

In an interview with the budget officer from the Teacher Education Department, the respondents contend that:

“We budget, sort out priorities, submit to the budget working group, but there are always budget cuts, and not all priorities are funded, and this leads to users not receiving

all they need. We have a challenge with late financial releases from MoFPED, for example, now colleges are opening, but there is no third-quarter release of funds, and principals have to operate on credit, which means enduring high prices. All this means scaling down on requirements due to high prices, and this definitely results in insufficient service delivery. Due to late releases, users don't receive their needs on time and at times don't receive them at all, and this compromises the quality of service delivery, resulting in poor performance.”

Service delivery in the Ministry of Education and Sports.

Quality of service delivery was the dependent variable under the indicators of tangibility, responsiveness and reliability measured using 15 items scored on five-point Likert scale ranging from (5) for strongly agree (4) for agree, (3) for not sure (2) for disagree (1) for strongly disagree and the finding are presented below using mean and standard deviation statistics.

Table 7: Mean and standard deviation results for quality-of-service delivery in the Ministry of Education and Sports.

Quality of service delivery	Mean	S.D
<i>Tangibility</i>		
1. The MoES physical facilities used are attractive	2.10	1.23
2. The MoES tools and equipment used to provide the service are appealing to you.	2.13	1.17
3. The personnel in the MoES are happy working with the Ministry	3.61	0.89
4. The MoES communication materials are appealing and attractive to you	2.10	1.13
5. Other stakeholders in the MoES are satisfied with the Ministries facilities	2.61	0.69
6. The services and goods provided by suppliers are of good quality and satisfactory	2.41	0.85
<i>Responsiveness</i>		
7. The MoES employees are always willing and/or ready to help customers	4.00	0.83
8. The MoES employees are always in a position to provide prompt service to those who seek them	2.23	1.23
9. The MoES is always in a position to provide timely services	1.96	1.13
<i>Reliability</i>		
10. The MoES promptly responds to the needs of the Ministry	3.74	0.70
11. The MoES employees are always in a position to deliver their services right at the first time	1.91	1.22
12. The MoES accurately keeps its promises	1.87	1.18
13. The MoES keeps its records correctly	1.90	1.31
14. The MoES is in a position to deliver its services at the designated time	1.96	1.31
15. The MoES suppliers are always reliable in times of need	2.10	1.40

Source: Primary data.

Table 7 shows a low level of tangibility as the respondents felt that the MoES physical facilities used were not attractive (Mean=2.10) while they also felt that the MoES tools and equipment used to provide the service were not appealing to them (Mean = 2.13). The respondents felt that the MoES communication materials were not appealing and attractive to them (Mean = 2.10), while they felt that other stakeholders in the MoES were satisfied with the ministry's facilities (Mean = 2.61). The services and goods provided by suppliers were not of good quality or satisfactory (Mean = 2.61).

Although the respondents indicated that MoES employees were always willing and/or ready to help customers (Mean = 4.00), the respondents felt that MoES employees were not always in position to provide prompt service to those who seek them (Mean= 2.23) while they also felt that the MoES was always in position to provide timely services (Mean = 1.96) an indicator of low level of perceived responsiveness.

There was an equally low level of perceived reliability as the respondents felt that the MoES employees were not always in a position to deliver services right at the first time (Mean = 1.91), while they also felt that the MoES did not accurately keep promises (Mean 1.87). The respondents also felt that the MoES did not keep its records correctly (Mean = 1.90), was not in a position to deliver its services at the designated time (Mean = 1.96), and the MoES suppliers were not always reliable in times of need (Mean = 2.10).

Correlation analysis between procurement budgeting and quality of service delivery in the Ministry of Education and Sports.

To test if there was a relationship between procurement budgeting and quality of service delivery in the Ministry of Education and Sports, a correlation analysis was conducted using Pearson's correlation coefficient and significance at the two-tailed levels.

Table 8: Correlation matrix between procurement budgeting and quality of service delivery.

		Procurement Budgeting	Quality of service delivery
Procurement Budgeting	Pearson Correlation	1.000	.355**
	Sig. (2-tailed)	.	.003
	N	70	70
Quality of service delivery	Pearson Correlation	.355**	1.000
	Sig. (2-tailed)	.003	.
	N	70	70

** . Correlation is significant at the 0.01 level (2-tailed).

P<0.05

Table 8 shows the Pearson's correlation coefficient $r = 0.355^{**}$ between procurement budgeting and quality of service delivery, suggesting that the two variables were related. The $r = 0.355^{**}$ and significance $p = 0.003$ between procurement budgeting and quality of service delivery suggests that there was a moderate, positive, significant relationship between procurement budgeting and quality of service delivery. This has a quality-of-service delivery policy implication in that to achieve the desired level of service quality, aspects of tangibility, responsiveness, and reliability, government ministries will need to adequately provide and promptly release acquisition budgets.

Regression model between procurement budgeting and quality of service delivery.

A regression analysis was conducted to measure the extent to which procurement budgeting predicted the variance in quality-of-service delivery using the ANOVA techniques of adjusted R^2 values, standardized beta values, t-values, and the significance measured at 0.05 levels. The results are tabulated in the table below.

Table 9: Regression results between procurement budgeting and quality of service delivery

Predictor	Adjusted R Square	Df	Mean square	F	Sig.
	0.113	1	3.208	9.781	0.003 ^a
			Standardized coefficients	t	Sig.
	Adjusted R-squared	Std error	Beta (B)		
Constant		0.253		7.004	0.000
Procurement budgeting	0.113	0.088	0.355	3.129	0.003

P < 0.05

- a. *Predictor: (constant), procurement budgeting*
- b. *Dependent Variable: quality of service delivery*

The regression model in Table 9 shows an adjusted R2 value of 0.113 between procurement budgeting and quality of service delivery, suggesting that procurement budgeting alone predicted 11.3% of the variance in quality of service delivery, while other variables predicted the highest variance of 88.7% in the quality of service delivery. The R2 = 0.113, beta 0.355, t = 3.129, and significance 0.003 suggested that procurement budgeting was a moderately significant predictor of the variance in service quality delivery in government ministries.

The study therefore confirmed the hypothesis that; *“Procurement budgeting significantly influences the quality-of-service delivery in the Ministry of Education and Sports of South Sudan.”*

Discussion of results.
Procurement budgeting and service delivery in the Ministry of Education and Sports

The study found a reasonable level of development of procurement budgets and the development of work plans, integration of procurements, and a combined work plan and scheduling of procurements in the financial year. This should be commended as it not only enables the establishment of the total acquisition portfolio of the entity but also is in compliance with the PPDA 2003 Regulation 96-102, which requires the provision of the user department's annual work plans, aggregation of requirements, and procurement of items in common use. The researcher, on the other hand, found failure to prepare multi-annual project procurement budgets and ensure that procurement funds are available. This puts constraints on the procurement systems, especially with the position that a good plan is as good as nothing if funds are released late for the procurement. Nevertheless, the study found a moderately significant relationship between

supplier selection and quality of service delivery, implying that to achieve the desired level of service quality, aspects of tangibility, responsiveness, and reliability are important. Government ministries will need to adequately provide and promptly release acquisition budgets.

These study findings have a bearing on Thai (2004) and Lyson (2006), who postulate that Procurement planning is commonly completed during the budgeting process.

Each year, departments are required to request budgets for staff, expenses, and purchases. This is the first step in the procurement planning process. The budgets for all departments are then reviewed, and in an organization that is committed to procurement planning, the accountants spend the time to find common purchasing requirements. Based on the budgets submitted, they may direct departments to work with central purchasing to combine their planned spending for specific commodities. This process works best in an organization that is committed to reducing costs. Issues surrounding delivery dates, contract compliance, and customer service issues must be resolved internally before going out to contract. In practice, procurement authorization and appropriations are integral parts of a public procurement system and determine procurement success. In many countries, construction projects face delays due to insufficient funds. For example, in Vietnam, Hanoi's new airport, where construction began in 1995, was officially opened for business in October 2001 after more than four years of delays. The sleek three-story, red-roofed terminal was supposed to be finished by late 1997, in time for a Francophone summit. The opening was delayed by redesigns and funding shortages (Associated Press, 2001). Actually, procurement professionals can provide policymakers with valuable information in the pre procurement cycle phases, including needs assessment, and procurement program authorization and appropriations (Office of Management and Budget, 1997).

Conclusion.

The study revealed that the MoES adequately conducted procurement budgets significant in user departments preparing a work plan for procurement based on the approved budget, integrating procurement plans into the annual and multi-annual sector expenditure programmes to enhance financial control over procurement budgets, PDU using the combined work plan to plan and schedule the Ministry's procurement activities for the financial year, always ensuring that sufficient funds were budgeted for framework contracts every financial year, to cover the full cumulative cost of call-off orders.

The study also shows that user departments in the MoES did not prepare a multi-annual, rolling work plan for procurement based on the approved budget to facilitate orderly execution of annual procurement activities, was constrained in ensuring that payment to a provider anticipated to last more than one financial year, were provided for in the budget estimates for the appropriate year to support the procurement during the subsequent years, and yet funds were not always available for budgeted procurement activities throughout the financial year.

The study revealed that Procurement budgeting had a moderately significant relationship with the quality of service delivery.

Recommendation.

To achieve the desired level of tangibility, responsiveness, and reliability aspects of quality-of-service delivery, the researcher recommends that the MoES and other PDEs in their procurement budgeting should: In view of the limited resources, priorities should be clearly set out and adhered to in each financial year in the entity.

Ensure that user departments in the MoES prepare a multi-annual rolling work plan for procurement based on the approved budget to facilitate the orderly execution of annual procurement activities.

Ensure that payments to a provider anticipated to last more than one financial year are provided for in the budget estimates for the appropriate year to support the procurement during the subsequent years. Adequately provide for supplementary budgets to cover the deficiencies and emergencies.

Furthermore, a study needs to be commissioned by PPDA to develop strategies for ensuring that procurement funds are released on time from the treasury, since it was noted that procurement budgets are released late.

Acknowledgement.

I am greatly indebted to my supervisor, Dr. Richard Ssemanda. I will always remember you for your constructive criticism of this dissertation.

I would also like to thank all the University staff, especially those from the Department of Graduate Studies and Research in South Sudan, for their continued guidance during my studies.

I must especially thank the staff of MOGEI in South Sudan who participated in this study for their commitment to fully furnish me with the required information.

List of Acronyms and Abbreviations

ANOVA: Analysis of Variance

BSC: Balanced Score Card

BTVET: Business, Technical, Vocational Education Training

CTB: Central Tender Board

CVI: Content Validity Index

FY: Financial Year

GDP: Gross Domestic Product

MOGEI: Ministry of General Education and Instruction

MoFEC: Ministry of Finance and Economic Cluster

OAG: Office of the Auditor General

OECD: Organization of Common Economic Development

PDEs: Procurement and Disposal Entities

PPDA: Public Procurement and Disposal of Public Assets Authority

USA: United States of America

Source of funding.

The study was not funded.

Conflict of interest.

There is no conflict of interest.

Availability of data.

Data used in this study are available upon request from the corresponding author.

The author's contribution.

FBJ designed the study, conducted data collection, cleaned and analyzed data, drafted the manuscript, and RS supervised all stages of the study from conceptualization of the topic to manuscript writing and submission.

Author's biography.

Frank Baba Jaden is a student of the Master of Business Administration at the School of Graduate Studies and Research, Team University.

Richard Ssemanda is a research supervisor at the School of Graduate Studies and Research, Team University.

Salongo Katerega is a research supervisor at the School of Graduate Studies and Research, Team University

References

1. Bhimani, A., Horngren, C. T., Datar, S. M., & Rajan, M. (2008). *Management and cost accounting*. Pearson Education.
2. Emmanuel, C., Otley, D., & Merchant, K. (1991). *Accounting for management control* (2nd ed.). Chapman and Hall. <https://doi.org/10.1007/978-1-4899-6952-1>
3. Lukka, K. (1988). Budgetary biasing in organizations: Theoretical framework and empirical evidence. *Accounting, Organizations and Society*, 13(3), 281–301. [https://doi.org/10.1016/0361-3682\(88\)90005-0](https://doi.org/10.1016/0361-3682(88)90005-0)
4. Matechak, R. (2011). *Public procurement and financial accountability in developing countries*. World Bank Institute.
5. Mintzberg, H. (1983). *Structure in fives: Designing effective organizations*. Prentice-Hall.
6. PPDA (Public Procurement and Disposal of Assets) Regulations. (2003). Government of Uganda.
7. WHO. (2000). *World health report 2000: Health systems—Improving performance*. World Health Organization.
8. World Bank. (2009). *Public sector reform: What works and why?* World Bank.
9. Thai, K. V. (2004). *Introduction to Public Procurement*. National Institute of Governmental Purchasing (NIGP).
10. Lysons, K., & Farrington, B. (2006). *Purchasing and Supply Chain Management* (7th ed.). Pearson Education.
11. Amin, M. E. (2005). *Social Science Research: Conception, Methodology, and Analysis*. Kampala: Makerere University Printery.
12. Kothari, C. R. (2004). *Research Methodology: Methods and Techniques* (2nd ed.). New Delhi: New Age International Publishers.
13. Krejcie, R. V., & Morgan, D. W. (1970). Determining Sample Size for Research Activities. *Educational and Psychological Measurement*, 30, 607–610. <https://doi.org/10.1177/001316447003000308>
14. Mugenda, O., & Mugenda, A. (1999). *Research Methods: Quantitative and Qualitative Approaches*. Nairobi: African Centre for Technology Studies.
15. Mugenda, O., & Mugenda, A. (2003). *Research Methods: Quantitative and Qualitative Approaches*. Nairobi: ACTS Press.
16. SPSS Inc. (2011). *SPSS Statistics for Windows, Version 20.0*. Chicago: IBM Corp.

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