

## UNIVERSITY FUNDING AND QUALITY OF EDUCATION IN THE UNIVERSITY OF JUBA, SOUTH SUDAN

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### ABSTRACT

The study examined the relationship between university funding and the quality of education at the University of Juba, South Sudan. A cross-sectional design and quantitative approach were used for the study in the philosophy of post-constructivism. A sample of 375 university middle management responded to a self-administered questionnaire which was validated and analyzed using SPSS version 23 measuring “r” with Pearson’s Linear Coefficient of Correlation (PLCC) and interview guide using the objective as a theme. The findings of the study indicated that university funding contributes 10.2% to the quality of education at the University of Juba; the remaining 89.8 % of the quality of education is influenced by other factors. The calculated (r) of 0. 324 at 0.01 and 0.05 levels (2tailed) meaning there is a strong positive relationship between university funding and quality of education. Thus, this study indicated that there is a positive relationship between university funding and quality of education. The study concluded that university funding is an influential factor in the quality of education at the University of Juba.

**Keywords:** University funding and quality of education.

### 1.0 INTRODUCTION

This study set out to assess the relationship between university funding and quality of education in the University of Juba in South Suda based on the believe that a university can execute its objectives and planned activities well when it has adequate funding for implementing the planned activities and programmes. Where there is limited funding in the university, it is hard to execute university activities. This is because university funding is cited as a barrier when perceived to be insufficient and a key enhancer of the quality of education when available (OECD 2021, World Bank 2010). The success in implementing university programmes it totally depended on the availability of adequate funds in the university. As such, this study assesses the relationship between university funding and the quality of education at the University of Juba in South Sudan.

### 1.1 University Funding and Quality of Education

Funding is an act of providing resources usually in form of money to a university (World Bank, 2010, Mande, 2015). Universities need funds to execute all objectives of the university as planned. Authors (Mande, 2015, Kasozi 2003, Ota, 2014, and OECD, 2021) noted a persistent funding gap between university funding and unit cost in university education

generally. As such, insufficient funding in a university affects students' access and quality of education. In addition, (OECD, 2021) argued that funds' inadequacy had the challenge on quality of education provision in a university (OECD, 2021, Mamdani, 2007). This is because inadequate funds hinder a university when it's trying to expand its capacity in terms of infrastructural development and human resource development.

Furthermore, it is argued that effective and efficient universities are always known by the funding strength they portray. However, Nakayita & Mande (2013) argued that funding alone cannot lead to quality of education but also investing wisely, focusing on key areas such as: Quality teaching, quality curriculum, adequate time management, adequate salaries, wages, incentives and effective supervision of all the university programmes and activities may lead to quality of education.

In response to such an argument, the debate about university funding and quality of education seems to be quite useful because it shows that without sufficient university funding little could be achieved as far as quality of education is concerned (Nakayita & Mande, 2013, Mande, 2015). It is also noted that funding alone without proper skills and competencies of university managers, can hardly achieve the quality of education in a university.

A university may be funded by several direct and indirect sources worldwide (Altbach, 2007). The direct sources are government aids and the indirect sources are students, self-generated funds and external sources (Altbach, 2007, UNESCO, 2017). The government funds consist of direct transfers: Entitlements, formula funding performance contracts, competitive funds, performance asides and tax exemptions. The indirect transfers include; scholarships, loans, tax and saving benefits.

Other authors (Geiger & Heller, 2011, Green, 2014, Van, 2014) contended that, within wide limits, a university can adjust to available funds to execute quality of education. A number of empirical studies in developed countries show a positive link between university funding and the quality of education. In this case, universities need to advance their sources of funding so that they execute quality education to enable the growth and development of society.

It is also noted by (World Bank, 2010, Van, 2014) that funding is the main instrument for implementing university priorities and there is a strong rationale for public intervention in the funding of university education. It is argued that universities with more money clearly have a greater ability to provide high, broad and deep educational opportunities. In contrast, the absence of university funding affects the quality of education in a university. It is also argued that payment of university lecturers on regular salaries, wages and allowances is determined by the availability of university funding which in the end promotes the quality of education in the university.

Furthermore, there is an assumption that an increase in educational resources in terms of funding to a university leads to quality of education (Mutina, Onyango & Nyagol, 2015), however, empirical literature presents a persistent controversy about whether sufficient university funding resources are a necessary condition for providing quality of education (Krueger, 2003; Al-Samarrai, 2002). This shows that there are a number of empirical studies in developed countries which link positively university funding to the quality of education.

Similarly, Krueger (2003) study, contents that resource expenditure is potentially correlated with student performance and hence the quality of education. On the other hand, a number of studies have investigated the relationship between educational expenditures and student outcomes it was found that there is a significant positive relationship between funding and quality of education (Al-Samarrai, 2002; Ahmed, 2015). But other studies also argued on the contrary that, the relationship between funding and quality of education is insignificant. However, at the University of Juba university funding influenced the quality of education. Specifically, it was noted that higher university funding for core expenditures such as, staffing, operations (services) and capital projects resulted in overall university performance and quality of education.

Furthermore, Oseni (2012) established that funds allocations to universities were not enough to run the university's operations in Nigeria universities which deterred quality of education. As such, Ahmed (2015) noted that universities ought to venture into other revenue generation activities to supplement the small allocations from the government and more so prudently utilize the available resources to enhance the quality of education.

Additionally, Ijaiya and Lawal (2010) argued that the performance of a university is influenced by the sources of its operating revenue (funding). In the literature, there are theoretical gaps in the relationship between university funding and quality of education. First, there are limited studies on the relationship between university funding and quality of education. In most studies a description of the variable of quality of education was missing. Second, studies on government funding for university education settled on the impact of funding at the national level. Thirdly, a number of studies have been conducted on the cost-sharing policy as a strategy for funding university education. However, there are limited studies on the relationship between university funding and quality of education. Fourth, a number of empirical studies have been done on income generation sources and revenue diversification measures. However, studies linking university funding and quality of education were limited. Overall, research on the relationship between university funding and the quality of education in universities in developing countries is also limited. This variable bridged the gap, particularly at the University of Juba in South Sudan.

## **2.0 METHODOLOGY**

The study employed a mixed-method approach. This method which is triangulation helps in ensuring the elimination of errors caused by threats in using only one method of data collection in this study. In sequence with this method, quantitative and qualitative data were gathered using a structured questionnaire and interview guide. The use of several methods also was very useful because it was possible for the study to gain greater validity and reliability than a single methodological approach (Mande, 2015 Bryman and Bell, 2015). The study utilized a cross-sectional sample survey design under the post-constructivism philosophy. The design was deemed appropriate because according to Creswell (2011), for studies involving analysis of respondents across a wide spectrum, a cross-sectional survey design acts as the best strategy for collecting data from a larger population.

## **3.0 FINDINGS/RESULTS**

### **3.1 Funding in the University of Juba**

In the interviews conducted on 27th June 2021, the study respondents mentioned that funding in the University of Juba comes from various ways which included: Local fees collection from students both private and government-funded, donations, consultancy, university investment projects and Annual Government Grants. All university dues were paid directly to the general bank account of the university for better management. The usage of the funds depended on the budget's allocations per college or department.

The respondents prescribed that the University of Juba has been operating on a decentralized financial management system for a decade. This is where the revenue is generated from tuition fees and then split between administration, colleges, departments and other administrative units, according to an agreed formula. This funding model was partially adopted from Sudan before the independence of South Sudan indeed, the University of Juba fully was following the policies of Sudan where the central government give a commitment to payment of salaries of staff only but nothing towards operation, services, and infrastructural development.

However, in the findings respondents reported a new change in the mode of collection of funds in the University of Juba adopted by the current university's top management. A centralized system of collecting and controlling funds in the University of Juba at the bank was introduced. A branch of Ivory Bank was opened at the campus with the facilitation by the university's top management. This is the current system of financial management at the University of Juba.

The director finance department coordinates with the line managers in the colleges/departments to ensure that funds allocated to the colleges are meaningfully used in order to promote quality of education. The directors of accounts monitor the budget lines of the colleges and channel the funds accordingly on the bases of proper reporting and accountability. The deans, directors and heads of departments monitor and supervise the fund's allocation to the colleges or departments to enhance the quality of education.

Concerning how the budgets influence the quality of education at the University of Juba. It was emphasized that generally the University of Juba budgeting process was participatory. All levels of the university management were involved in the budgeting process. The departments make their budgets proposals which are organized at the next levels until a consolidated University budget is made. In this case, the heads of departments convene meetings and use the methods of brainstorming to make up plans for a year and attach monetary figures to each activity at the departmental levels and units. The departmental budget estimates are then used to formulate a college budget. In considering budget estimates at the departmental level/units, only operational items were taken into account. Other items which required a college or university-wide approval are not included in a departmental budget estimate. Such items were salaries and capital development budgets alike. But they only budgeted for the services (operational items). This is reflected in the six-year budget of the University of Juba below:

**Table 1: Six-Year Budget Summary of the University of Juba**

Year	Category	Amount in South Sudanese Pound
2016-2017	Salaries, Operation (Service), Capital Development	201,135,510 SSP
2018-2019	Salaries, operation (Service), Capital Development	303,275,508 SSP
2020-2021	Salaries, Operation (Service), Capital Development	410,117,600 SSP

**Source:** the University of Juba at Director of Finance office on 8th March 2022.

The budget of the University of Juba is basically divided into three parts, salary, service, and capital development. According to the interviews held on 10th March 2022 respondents argued that the budget was just prepared for the sake of having figures at hand but the University of Juba is unable to raise the complete budget of the university according to the budgeted items in each fiscal year. They mentioned that the government grant only contributed 25% for catering salaries which they called it to chapter one part of the budget. This affected quality of education in the University of Juba negatively.

Although it was noted that each department participates in the budgeting process for every financial year, there are items that are budgeted for at the college level only, the departmental budgets contribute towards the college budget, the zero-budgeting approach was adopted but the budgets at departmental levels were mainly about operational issues (services). However, the respondents articulated that, the funding budget in the University of Juba was the responsibility of the entire university, so it was one thing to budget and it was another to have the budget funded. If a budget was not funded fully. It was a foregone conclusion that the quality of education would be affected negatively. In this regard, the departments and college budgets had a connection with the university-wide budget. And if the university budget is fully funded then the quality of education will improve.

Generally, the respondents described university funding at the University of Juba as poor, and that it cannot render quality education. This was because the government grant was not remitted on time, meager tuition fees were allocated to the students, not enough sources of income, and inappropriate policies guiding operations which resulted into delayed salaries for the entire university. From such perceptions, one could infer that university funding is the main instrument to enhance the quality of education. Without adequate university funding provisions, the performance of the university suffers. Consequently, the whole university

experienced a low rating for the quality of education. This affected the corporate image of the university as the world prefers to identify with winners.

### 3.2 Results of Tests of Null Hypothesis

However, to come with adequate results the study ought to test the results of a null hypothesis that says, “there is no significant relationship between university funding and quality of education?” To analyze this hypothesis the researcher, use correlation and simple linear regression as described in table 2 below;

**Table 2: Showing Correlation between University Funding and Quality of Education**

		University Funding	Quality of education
University Funding	Pearson Correlation	1	.324**
	Sig. (2-tailed)		.000
	N	375	375
Quality of education	Pearson Correlation	.324**	1
	Sig. (2-tailed)	.000	
	N	375	375
**. Correlation is significant at the 0.01 level (2-tailed).			

(Source: Primary Data, 2021)

The findings of the study in table 2 above show the relationship between university funding and quality of education. It shows that through bivariate means, the correlation between university funding and quality of education is (r)= 0.324. This implies that there is a low positive relationship between the two variables since the significant value is 0.000 which is less than 0.01 ( $p < 0.01$ ). This, therefore, shows that a positive change in university funding resulted in a positive change in the quality of education and vice versa. As university funding increases, in turn, it contributes to the quality of education in the university. Again, one can note that university funding is a factor that influences the quality of education. The relationship is positive implies that more university funding is likely to lead to quality of education. However, it is easy also to note that although the relationship was low, nevertheless the University of Juba cannot do everything planned because of limited funding which hinders the quality of education at the University of Juba.

A simple linear regression test was also carried out to confirm the relationship of university funding and the quality of education at the University of Juba. The results ( $F= 43.704$  and  $Sig =0.000$  which is less than 0.01) indicated that there was linearity between university funding and quality of education. The funding that is made available to managers enhances the quality of education. This illustrates that weakness in university funding negatively affects the quality of education in a university as shown in table 3 below;

**Table 3: Showing Model Summary for University Funding and Quality of Education**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.324 <sup>a</sup>	.105	.102	.48763
a. Predictors: (Constant), University Funding				

(Source: Primary data, 2021)

The model summary of regression produced an Adj. R2 of 0.102 which is translated into 10.2%. The model, therefore, proved that university funding explained only (10.2%) it could not be ignored as far as its effect was concerned. It only reflected that the little money the university has produces a low quality of education. The regression results as presented in table 3 above show the adjusted R square value of 0.102, it implies that university funding contributes 10.2% towards the quality of education at the University of Juba; the remaining 89.8 % of the quality of education is influenced by other factors. This thus implies that there is a significant positive relationship between university funding and quality of education at the University of Juba a positive change in university funding resulted in a corresponding positive change in the quality of education and vice versa. The study sought to establish the regression results as shown in table 4 below;

**Table 4: University Funding and Quality of Education**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	10.392	1	10.392	43.704	.000 <sup>b</sup>
	Residual	88.694	373	.238		
	Total	99.086	374			
a. Dependent Variable: Quality of education						
b. Predictors: (Constant), University Funding						

(Source: Primary Data, 2021)

Results of the study in table 4 above indicated that the regression model predicts the dependent variable significantly well. There is a statistical significance of the regression model indicated by F= 43.704 and Sig =0.000 which is less than 0.01. This is also supported by the regression mean square value of 10.392 compared to the residual mean square of 0.238 which is significant to zero. This thus confirms that there is a low positive relationship between university funding and quality of education in the University of Juba and a positive change in university funding resulted in a corresponding positive change in improving quality of education and vice versa. The study further establishes the Coefficients as reflected in table 5 below;

**Table 5: Coefficients of University Funding and Quality of Education**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.569	.153		16.808	.000
	University Funding	.310	.047	.324	6.611	.000
a. Dependent Variable: Quality of education						

(Source: Primary Data, 2021)

Findings of results from table 5 give t values and Beta. The t-values test the relationship that the coefficient is different from 0. To reject this, you need an at-value greater than 1.96 (for 95% confidence). The t-value for university funding is 6.611 which are greater than 1.96. This implies that university funding influences the quality of education considering a significant factor (Sig =0.000). Also, the standardized beta coefficient of 0.310 implies that one unit increase in quality of education is caused by a 0.310 units increase in university funding. This, therefore, means that there is a significant positive relationship between university funding and quality of education.

This served further to confirm that university funding moderates quality of education. Since the test gives a low relationship, this explains the current performance of the University of Juba. That is, when the university funding is low, there is the low quality of education. The results of the test of hypothesis (1) showed that it was the alternate hypothesis (1) “There is a significant relationship between university funding and quality of education in the University of Juba which was supported. The null hypothesis (1) that “There is no significant relationship between university funding and quality of education in the University of Juba” was abandoned. The implication of all that is that university funding should be taken seriously if the quality of education at the University of Juba is going to improve.

**4.0 CONCLUSION AND RECOMMENDATION**

This article has presented the quantitative and qualitative results on the relationship between university funding and quality of education. At the quantitative, the results on effect of university funding on the quality of education had to be examined by testing the hypothesis. The hypothesis on university funding and quality of education was tested using correlations and regression tests. The results of the bivariate correlation indicated a low positive significant relationship between university funding and quality of education [r (102) = .102, p<0.01]. It can be concluded from the above results that university funding helps to support and even promote the quality of education. The hypothesis was further subjected to regression analysis. The model summary produced an Adj. R2 of 0.102. This translated into 10%. This means in the model, university funding, explained only 10% of the quality of

education in the University of Juba. This percentage of 10% is a rather low contribution of university funding to the quality of education.

The study concluded that there was meager university funding given to the University of Juba. The University of Juba is a public university in South Sudan, the government funding is low and, on most occasions, it is remitted late. The results indicated that there was linearity between the two variables [F (6.611) 0.310,  $p < 0.01$ ]. From this result, one can conclude that the more of the independent variable, the more the dependent variable. Or alternatively, the less the independent variable, the less the dependent variable. The implication of this is that an increment in university funding contributes to the quality of education. The results of simple linear regression further revealed that university funding indeed had an impact on the quality of education [Beta = .611,  $p < 0.01$ ]. From this one can rightly conclude that the hypothesis "There is no significant relationship between university funding and quality of education in the University of Juba" was not supported. Instead, the alternate hypothesis that "There is a significant relationship between university funding and quality of education in the University of Juba" was reinforced. This can be noted from the fact that when funds are meager that are given to the university, activities like research, motivation of staff, materials, internships, and the like are not easily executed. This in turn affects the quality of education in a university. So, the study concludes that to implement the above-mentioned programs, need sufficient university funding to contribute meaningfully to the quality of education. At the qualitative data findings, the study found out that there was low funding which affects the quality of education in the University of Juba.

The study recommends that there is a need for the government of South Sudan to increase funding to the University of Juba and the university's top management should ensure innovative engagement with the private sector to raise the finance needed by the university. Such a move would allow the University of Juba to employ more qualified lecturers with relevant qualifications to match the number of enrolled students in the university.

The study recommends that the management of the University of Juba should put in place modern financial management control systems especially the adoption of computer-related packages to make sure they are able to plan properly and avoid financial surprises. There is a need to prioritize expenditures such that the most pressing issues are spent on while they leave behind some funds to cater for the unforeseen circumstances most especially motivation of academic staff to enable active participation of staff in promoting quality of education in the University of Juba.

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