

## QUALITY CONTROL MECHANISM FOR THE EFFECTIVE MANAGEMENT OF PUBLIC UNIVERSITIES IN RIVERS STATE

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### *Abstract*

*The study focusses on quality control mechanism for the effective management of public universities in Rivers State Three (3) research questions and three (3) corresponding Null hypotheses guided the study. A Descriptive survey research design was used for the study. The population of the study comprised of two hundred and five (205) administrative officers of the public universities in Rivers State. The sample size is the entire two hundred and five (205) representing (100%) of the population of the study. This is because the population can be handled by the researcher. So census sampling techniques was used. The instrument for data collection was a set of questionnaires titled: Quality Control Mechanism for Effective Management Questionnaire (QCMEMQ). The reliability of the instrument was assessed using the Pearson Product-Moment Correlation (PPMC) statistical tool, which yielded a reliability coefficient of 0.832. Mean and standard deviation with SPSS version 20 to answer the research questions. An independent sample t-test was used to test the null hypotheses at a 0.05 significance level. The findings of the study shows that quality control mechanism plays significant role in management of public universities in Rivers State. Thus, the study concludes that well managed universities in terms of monitoring and evaluation as quality control mechanism will facilitate effective teaching and learning process and as well enhance the delivery of effective university education. Therefore, it is recommended that management of public universities in Rivers State should monitor activities to keep both staff and students informed about the progress of the university.*

**Keywords:** Quality Control, Mechanism, Effective Management, Public Universities, Rivers State

### **Introduction**

Training is generally acknowledged as a significant instrument for advancing financial, political and social improvement in Nigeria. Colleges teach future pioneers and foster the undeniable level specialized limits that support monetary development and improvement. In the meantime, the fundamental reason and significance of college schooling in Nigeria is the

arrangement of much required labour supply to speed up the financial advancement of the country. High level training is seen as an instrument of social change and money related development. In building the economy of any country, it is vital for make reference to how high level training gives specific data and expert capacities are normal for development parading the economy (Ajayi and Haastrup, 2008).

Effective organization of universities incorporate portraying the school's principal objective, values and goals, as well as propelling the school culture by in like manner including other accomplice. The top organization bodies have a huge impact in the significance of the school methodology and in the progression of a quality control and its part. How a school lays out that the organization of its educating and progressing as well true to form and arranged, to affirm that such activities are done adequately. Furthermore, every school has its own quality control practices which should be effectively made due. Quality control is central to staying aware of the decency and common sense of data. School organization should as such execute frameworks to diminish the bet of introducing botches in the data, and to lighten the impact of bumbles when they occur (Medne, Lapina, & Zeps 2020).

Quality Control (QC) is an association embraced to ensure that the rules and targets of an action are both sensible and being met. In tutoring, quality control is a huge issue, as gatekeepers, students, and educators need to ensure that all students get adequate groundwork for the future. There are various techniques for quality control in tutoring, including state authorized testing, showing review, and getting ready. The association of school norms as a rule starts things out concerning preparing quality control. These could be metropolitan, state, government, or institutional guidelines that determine what a student ought to be aware toward every scholarly year's end. For instance, a quality control standard could require all students to have taken and passed estimation by the tenth grade. Quality control standards in like manner spread out rules for the guidance necessities for teachers, similar to responsibility for genuine instructing capability. At the point when school rules are set, the overseeing board can execute an example of assessment, procedure changes and increments, and execution that ensures that a school satisfies its rules (Ellis, 2022).

The importance of this study is depended on the quality control framework for feasible organization. As such can be said to hold both speculative and helpful to social change.

The tale of college training in Nigeria today has generally been an account of blended fortune and furthermore serials of protests and remarks from partners that the norm of schooling is falling because of low quality control in training with regards to enrollment of faculty, choice of understudies for confirmation, lead of assessment in colleges, and a large group of different issues. Additionally, it has been seen that viability of speakers in colleges isn't empowering and this has similarly been followed to low quality control in training. These foundations at first laid claims in having good effect on the socio-political and monetary headway of Nigeria. Today, there are questions whether Nigerian colleges under the current circumstances will actually want to proceed to lay claims on being key to public ability to associate with the new worldwide information framework and embrace, adjust and additionally foster the new

advancements required in the more extensive society. A portion of the emergencies perceptible in Nigerian colleges include: monetary emergency, unfortunate framework, mind channel, disintegration of college independence, graduate joblessness, unstable and assailing understudies' unionism, secret cliques, assessment misbehaviours and lewd behaviour. Notwithstanding, unfortunate stock, unfortunate support and the board will yield low quality of educating and learning in all schools. offices are customary highlights in the school. Comprehensively, low quality instructor training on our school system can be credited to the difficulties of values, difficulties of social certainty, discipline, difficulties of populace blast, difficulties of instructive direction and social importance as well as difficulties of the showing calling become a withering and decadents' industry. The inferior quality result has comprised an issue for the way that understudies are no seriously finding it simple to adapt to their confidential college partners, and decide to move from public to private colleges where qualified instructors, sufficient offices and legitimate administration have been ensured. Subsequently, the study looked to overcome any barrier in the current information as it will zero in on quality control components for powerful administration of state funded colleges in Waterways State.

The point of this study is to examine quality control mechanism for the effective management of public universities in Rivers State In particular, the targets are to:

1. examine the degree monitoring as quality control mechanism enhance the effective management of public universities in Rivers State.
2. investigate the degree evaluation as quality control mechanism enhance effective management of public universities in Rivers State.

The accompanying exploration questions were raised to direct the review:

1. To what extent does monitoring as quality control mechanism enhance the effective management of public universities in Rivers State?
2. To what extent does evaluation as quality control mechanism enhance effective management of public universities in Rivers State?

The accompanying speculations were figured out and genuinely tried at 0.05 degree of importance:

1. There is no significant difference between management of federal and state universities in their mean rating on the extent monitoring as quality control mechanism enhance effective management of public universities in Rivers State.
2. There is no significant difference between management of federal and state universities in their mean rating on the extent evaluation as quality control mechanism enhance effective management of public universities in Rivers State.

## Literature Review

This study anchored on the Juran's Theory of Quality in 1986. The Juran Trilogy, also called Quality Trilogy, was presented by Dr. Joseph M. Juran in 1986 as a means to manage for quality. The traditional approach to quality at that time was based on quality control, but today, the Trilogy has become the basis for most quality management best practices around the world (Juran, 1986).

In essence, the Juran Trilogy is a universal way of thinking about quality it fits all functions, all levels, and all product and service lines. The underlying concept is that managing for quality consists of three universal processes:

- Quality Planning (Quality by Design)
- Quality Control (Process Control & Regulatory)
- Quality Improvement (Lean Six Sigma)

The Juran Trilogy diagram is often presented as a graph, with time on the horizontal axis and cost of poor quality on the vertical axis.

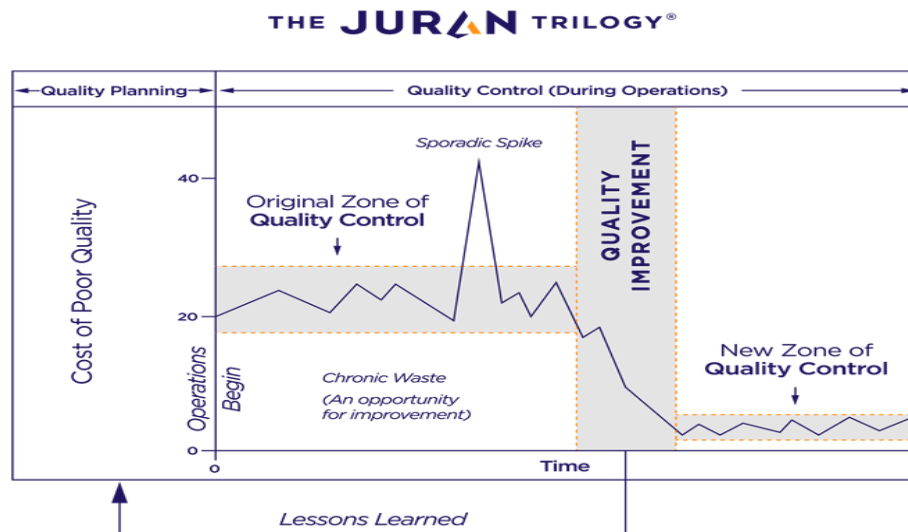


Figure 1: The Juran Trilogy diagram

Source: (Dou, 2020).

According to Juran, quality includes all of an establishment's activities to ensure that it attends to the needs of its students. It also includes a foundation standard that addresses issues with understudies that prompt staff and understudies to feel fulfilled (Njui, 2018). They can take into account ensuring a high-quality assembly process as the second component of value quality control. The fundamental principle of this movement is excellent preparation, or as we

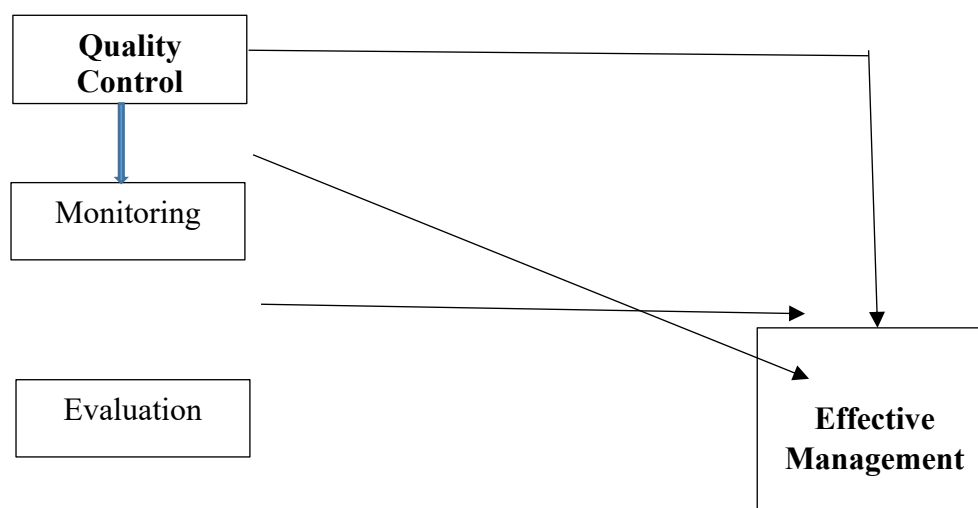
refer to it here, "quality by plan" - creating something new. This could be an additional item, a procedure, an administration, and so on. As things go on, it soon becomes evident that the organization norm for item delivery isn't 100% error-free (De Feo, 2017). Why? Due to the fact that there are hidden or sporadic disappointments (variety) that call for revision and retrying. Over 20% of the work in the aforementioned graph needs to be revised due to setbacks. It is believed that this waste will never stop until the association decides to identify its primary causes and get rid of it. It's referred to as the Cost of Low Quality. Not all unforeseen obstacles in the plan interaction could be represented by the plan and improvement cycle.

Conventional obligation designs prevent the working powers from getting rid of trash or defects (De Feo, 2017). As demonstrated, all they can do is exert total control to prevent things from getting worse. The figure displays an unanticipated irregular surge that has caused the degree of disappointment to rise above 40%. This surge was caused by an unforeseen event such as a power outage, a malfunction in the system, or a mistake made by a person. The working powers unite on the scene and take action to restore normalcy as part of the control interaction. This is often referred to as investigative work, firefighting, restorative action, etc. The ultimate goal is to return the error rate to the planned, continuous level of about 20%. The diagram also demonstrates that the persistent trash was pushed down to a level far lower than the first level at the scheduled time. The third cycle of Juran's Set of three improvement produced this gain. Consequently, efforts were made to improve things after it was realized that the ongoing waste presented an opportunity for growth (Juran, 2003; De Feo, 2017).

### The relevance of the Juran Trilogy to this present theory

The Juran Trilogy is relevance to this present theory because it is an improvement cycle that is meant to reduce the cost of poor quality by planning quality into the product/process. In the planning stage, it is critical to define who their students are and find out their needs (the voice of the students).

### Conceptual Framework



**Figure 2:** Conceptual Framework showing the relationship between quality control (Monitoring, and evaluation) and effective management

## Source: Researchers Conceptualization

### Quality

A regular meaning of value incorporates education, numeracy and fundamental abilities, and is straightforwardly connected to such basic parts as teachers, content, procedures, educational plan, assessment frameworks, strategy, arranging, and the board and organization. A school system with attributes that might be considered of low quality, regarding current reasoning, can be a hindrance to enrolment and finish. Families and understudies who live in troublesome conditions won't invest monetary and energy assets on a training that they don't view as of value. There is no single meaning of instructive quality. Furthermore, the comprehension of what comprises quality training is advancing. Nature of scholarly staff input in the instructive area brings quality training which is an instrument profoundly key in the change of people, values, convictions and ways of behaving (Ehusani, 2002).

### Quality Control Mechanisms

The most important task before management should be to develop quality consciousness among the staff. They must be clearly told and impressed about the importance of quality in the institution. The leadership of universities must be quality minded themselves before the quality consciousness is inculcated among the staff. The following are various quality control mechanisms for effective management:

**Monitoring as Quality Control Mechanism:** **Monitoring:** is the continuous and systematic collection of data on specified indicators in order to provide the main actors of an on- going development intervention with indications of the extent of progress and achievement of objectives (in relation to allocated resources).

**Evaluation as Quality Control Mechanism:** is the evaluation process of characterizing and appraising some aspect/s of an educational process. There are two common purposes in educational evaluation which are, at times, in conflict with one another.

### Methodology

This study adopted the descriptive research design. The population of this study comprised of all the administrative officers of the public universities in Rivers State, which are; the Vice-Chancellor, the Registrar, the Bursar, University Librarian, Deans of faculties, Heads of Departments. The total population of the study is two hundred and five (205) administrative officers of the public universities in Rivers State (University Site, 2022). The sample size is the entire two hundred and five (205) representing (100%) of the population of the study. This is because the population can be handled by the researcher. So census sampling techniques was used. The instrument for data collection was a set of questionnaires titled: Quality Control Mechanism for Effective Management Questionnaire (QCMEMQ). The instrument was structured on a Modified four-point Likert rating scale with numerical values assigned to them as follows: Very High Extent (VHE)=4 points, High Extent (A)=3 points; Low Extent(D)=2 points and Very Low Extent (SD)=1 point. The reliability index yields .831 which was

determined using the Cronbach Alpha. Mean and standard deviation were to answer the various research questions while the Independent t-test was used to test the hypotheses at a 0.05 level of significance formulated in the study. The criterion mean of 2.50 was achieved thus 4+3+2+1/4. Analysis was done using SPSS Version 26.

## Result

**Research Questions One:** To what extent does monitoring as quality control mechanism enhance the effective management of public universities in Rivers State?

**Table 1: Descriptive Statistics of Mean score and standard deviation of the extent monitoring as quality control mechanism enhance effective management**

| S/N |  | Federal (N=110) |        | State (N=79) |       | X1+X<br>2 | S.D1+SD<br>2 | Remark |
|-----|--|-----------------|--------|--------------|-------|-----------|--------------|--------|
|     |  | Mean            | S.D    | Mean         | S.D   | 2         | 2            |        |
| 7   | Monitoring is essential to ensure that the intended university objective are achieved within the given time frame for effective management of universities | 2.7545          | .89017 | 2.5789       | .6483 | 2.6667    | 0.79925      | HE     |
| 8   | Monitoring enables continuous improvement while helping prevent untoward incidents from happening for effective management of universities                 | 2.5364          | .90389 | 2.8816       | .8939 | 2.709     | 0.898915     | HE     |
| 9   | Monitoring is done to ensure that the people who need to know about a development intervention are   | 2.5455          | .93491 | 2.9605       | .9443 | 2.753     | 0.93962      | HE     |

|    |   |        |        |       |       |        |         |    |
|----|---|--------|--------|-------|-------|--------|---------|----|
|    | properly informed<br>for effective<br>management of<br>universities   |        |        |       |       |        |         |    |
| 10 | Monitoring ensure<br>quality<br>improvement after<br>implementing<br>change for<br>effective<br>management of<br>universities.  | 2.8818 | .79304 | 2.650 | 1.047 | 2.7959 | 0.90513 | HE |
|    |   |        |        | 0     |       |        |         |    |
| 11 | Monitoring is<br>essential to ensure<br>that the intended<br>university<br>objective are<br>achieved within<br>the given time<br>frame for effective<br>management of<br>universities |        |        |       |       | 2.7236 | 0.87823 |    |
|    |   |        |        |       |       | 5      |         |    |
|    | Mean Set  | 2.7545 | .89017 | 2.578 | .6483 | 2.6667 | 0.79925 | HE |
|    |   |        |        | 9     |       |        |         |    |

**Source:** SPSS Output, 2023.

"To what degree does monitoring as a quality control mechanism enhance effective management of public universities in Rivers State?" is the second study question. Table 4.1 shows It displays the total number of responses, together with the standard deviation and mean score. The first item's purpose was to determine if monitoring is necessary for the proper administration of universities in order to guarantee that the planned objectives are met within the allotted time period. The findings revealed a mean score of 2.67. The second item, which advocated that monitoring fosters ongoing development while assisting in the avoidance of undesirable events for the efficient administration of universities, got a mean score of 2.71 on the scale. The third item, which asked if monitoring is carried out to guarantee that those who require information about a development intervention are appropriately informed for efficient administration of universities, also elicited affirmative replies, with a mean score (x) of 2.75. The last question asked if monitoring would guarantee quality improvement following the implementation of changes for efficient university administration. The replies were generated

in the positive, with a mean score (x) of 2.77. The analysis's outcome showed a Mean Set of 2.72. This demonstrates that a significant portion of respondents strongly concur that using monitoring as a quality control tool improves the efficient administration of public institutions in Rivers State.

**Research Questions Two:** To what extent does evaluation as quality control mechanism enhance effective management of public universities in Rivers State?

**Table 2: Descriptive Statistics of Mean score and standard deviation of the extent evaluation as quality control mechanism enhance effective management**

| S/N |  | Federal (N=110) |        | State (N=79) |        | X1+X2   | S.D1+SD  | Remark |
|-----|--|-----------------|--------|--------------|--------|---------|----------|--------|
|     |  | Mean            | S.D    | Mean         | S.D    | 2       | 2        |        |
| 1   | Evaluations  | 2.500           | 1.3285 | 2.652        | 1.1182 | 2.5793  | 0.12234  | HE     |
| 2   | provides information useful for decision-making and effective management of university | 0               | 8      | 6            | 7      |         |          |        |
| 1   | Evaluations  | 2.827           | 1.0653 | 2.013        | .93086 | 2.67025 | 0.99812  | HE     |
| 3   | to determine plausibility for effective management of universities                     | 3               | 8      | 2            |        |         |          |        |
| 1   | Evaluations  | 3.027           | .91330 | 2.921        | .94887 | 2.9742  | 0.931085 | HE     |
| 4   | to determine probability for effective management of universities.                     | 3               |        | 1            |        |         |          |        |
| 1   | Evaluation   | 2.972           | 1.0178 | 2.723        | 1.1500 | 2.8482  | 1.083935 | HE     |
| 5   | help to  | 7               | 1      | 7            | 6      |         |          |        |

determine  
adequacy for  
effective  
management  
of  
universities.

Mean Set 2.79723 0.78387  
8

**Source:** SPSS Output, 2023.

"To what degree does evaluation as a quality control mechanism enhance effective management of public universities in Rivers State?" is the second research question. Table 2 It displays the total number of responses, together with the standard deviation and mean score. The first item's result revealed a mean score ( $\bar{x}$ ) of 2.58, indicating that evaluations offer information helpful for decision-making and efficient university management. The second item's mean score ( $\bar{x}$ ) was 2.67, indicating that evaluations to ascertain plausibility for efficient university management were plausible. In a similar vein, the third question asked whether evaluations could be used to estimate the likelihood of successful university administration. The replies were generated in the positive, with a mean score ( $\bar{x}$ ) of 2.97. The last question asked whether evaluations aid in determining whether a university is adequately managed. The answers were in the positive, with a mean score ( $\bar{x}$ ) of 2.85. The analysis's outcome showed a Mean Set of 2.70. This demonstrates that a significant portion of respondents strongly concur that evaluations used as a quality control tool improve the efficient administration of public institutions in Rivers State.

## Test of Hypotheses

**Hypothesis 1:** There is no significant difference between management of federal and state universities in their mean rating on the extent monitoring as quality control mechanism enhance effective management of public universities in Rivers State.

**Table 3: Summary of independent t-test analysis on the significant difference between the management of federal and state universities in their mean rating on the extent monitoring as quality control mechanism enhance effective management**

| Respondents        | N   | $\bar{x}$ | SD     | Df  | t     | Sig.  | Decision    |
|--------------------|-----|-----------|--------|-----|-------|-------|-------------|
| Federal University | 110 | 2.6545    | .55951 | 187 | 7.334 | 0.000 | Significant |
| State Universities | 79  | 2.0428    | .55885 |     |       |       |             |

Table 3 indicates that  $t = 7.334$ ,  $df = 187$  at significance level of ( $P = v = 0.000 < 0.05\%$ ) observed that; there is significant difference between the management of federal and state universities in

their mean rating on the extent monitoring as quality control mechanism enhance effective management of public universities in Rivers State. Therefore, the null hypothesis two is rejected at the 0.05 level of significance.

**Hypothesis 2:** There is no significant difference between management of federal and state universities in their mean rating on the extent evaluation as quality control mechanism enhance effective management of public universities in Rivers State.

**Table 4: Summary of independent t-test analysis on the significant difference between the management of federal and state universities in their mean rating on the extent evaluation as quality control mechanism enhance effective management**

| Respondents        | N   | $\bar{x}$ | SD     | Df  | t     | Sig.  | Decision    |
|--------------------|-----|-----------|--------|-----|-------|-------|-------------|
| Federal University | 110 | 2.8068    | .61858 | 187 | 3.970 | 0.000 | Significant |
| State Universities | 79  | 2.4279    | .67059 |     |       |       |             |

Table 4 indicates that  $t = 3.970$ ,  $df = 187$  at significance level of ( $P=v=0.000<0.05\%$ ) observed that; there is significant difference between the management of federal and state universities in their mean rating on the extent evaluation as quality control mechanism enhance effective management of public universities in Rivers State. Therefore, the null hypothesis three is rejected at the 0.05 level of significance.

## Discussion of Findings

### The extent monitoring as quality control mechanism enhances effective management of public universities in Rivers State.

It was determined from table 3 that there was a significant difference in the mean rating of the Management of Federal and State Universities on the extent monitoring as quality control mechanism enhance effective management of public universities in Rivers State, rejecting hypothesis one, which states that "there is no significant difference between Management of Federal and State Universities in their mean rating on the extent monitoring as quality control mechanism enhance effective management of public universities in Rivers State." The significant p-value threshold of  $0.000<0.05$  makes this clear. This indicates that there was a notable distinction in the management of Federal and State Universities in Rivers State using monitoring as a quality control tool. Research by Khan et al., (2009), titled 'Service Quality Evaluation in Internet Banking' empirical research in India, supports this conclusion.

### Management of federal and state universities in their mean rating on the extent evaluation as quality control mechanism enhance effective management of public universities in Rivers State

There was a significant difference between the management of federal and state universities in their mean rating on the extent evaluation as quality control mechanism enhance effective

management of public universities in Rivers State, as revealed in table 4. Therefore, hypothesis two, which states, "there is no significant difference between management of federal and state universities in their mean rating on the extent evaluation as quality control mechanism enhance effective management of public universities in Rivers State," was rejected. The significant p-value threshold of  $0.000 < 0.05$  makes this clear. This indicates that there were notable variations in the ways that the administrations of the Federal and State Universities in Rivers State used assessment as a quality control method. The quality evaluation of general medical education in China: An empirical analysis based on 36 medical schools, research by Feng and Zhu (2023), is consistent with this conclusion.

## Conclusion

The outcome of this study reveals that quality control mechanism plays significant role in management of public universities in Rivers State. Thus, the study conclude that quality control mechanism plays essential role in enhancing effective management of public universities in Rivers State. In other words, the importance of higher education can only be achieved when there is effective management of universities through quality control mechanism. It is vital to bear in mind that effective management of public universities or success outcomes are significantly impacted by interactions that occur between quality control mechanisms. Conclusively, well managed universities in terms of Monitoring and Evaluation as quality control mechanism will facilitate effective teaching and learning process and as well enhance the delivery of effective university education.

## Recommendations

Based on the findings of this study, the following recommendations were made:

1. Management of public universities in Rivers State should ensure quality control mechanisms such as monitoring and evaluation,
2. Management of public universities in Rivers State should monitor activities to keep both staff and students informed about the progress of the university.
3. Management of public universities in Rivers State should ensure an adequate evaluation process as it provides information based on which many educational decisions are taken.

## Contribution to Knowledge

This study contributes to the existing literature on quality control mechanism for effective management of public universities in Rivers State.

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