Evaluation of External Efficiency Instruments and Their Relationship with Quality Assurance in Delta State Public Universities

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Abstract:

This study evaluated external efficiency instruments and their relationship with quality assurance in Delta State public universities. Adopting a correlational survey design, the study sampled 274 heads of department and teaching staff from a population of 1,878 using proportional stratified random sampling. Data were collected through a validated questionnaire (External Efficiency and Quality Assurance Questionnaire) with a reliability coefficient of 0.76 and analyzed using mean, standard deviation, coefficient of determination, and Pearson Product Moment Correlation at 0.05 significance level. Findings revealed that Delta State public universities employ nine primary external efficiency instruments, including internship and work-integrated learning programs (Mean = 2.91), graduate employment rate monitoring (Mean = 2.83), curriculum-labour market alignment reviews (Mean = 2.79), and alumni feedback mechanisms (Mean = 2.74), though alumni career progression tracking (Mean = 2.47) was inadequately employed. Quality assurance strategies implemented include regular program accreditation (Mean = 3.25), maintenance of minimum academic standards (Mean = 3.18), institutional quality assurance units (Mean = 3.12), and systematic curriculum review (Mean = 3.08). The study established a significant positive relationship between external efficiency instruments and quality assurance strategies ($r = .610$, $p = .000$), with external efficiency instruments accounting for 37.2% variance in quality assurance strategies. The study concluded that effective engagement with external efficiency mechanisms positively influences quality assurance practices in Delta State public universities. It was recommended that universities institutionalize graduate tracer studies and employer feedback systems, deepen industry partnerships through advisory boards and expanded internship programs, and enhance quality assurance data management systems to support evidence-based planning and continuous improvement.

Keywords— External Efficiency; Quality Assurance; Public Universities; Graduate Employability; Accreditation; Delta State, Nigeria

I. INTRODUCTION

Higher education institutions worldwide face increasing pressure to demonstrate accountability, efficiency, and relevance to societal needs while maintaining high academic standards. This dual imperative has positioned universities at the cross centre of two critical evaluation paradigms: external efficiency and quality assurance. External efficiency refers to how well educational institutions align their outputs with labour market demands and societal needs, while quality assurance encompasses the systematic processes designed to maintain and enhance institutional standards and practices. Understanding the relationship between these two dimensions is crucial for universities seeking to produce graduates who are not only academically qualified but also equipped to contribute meaningfully to economic and social development. In Nigeria, the higher education system has witnessed unprecedented expansion, with Delta State hosting several public universities that serve thousands of students annually. However, this expansion has raised fundamental questions about the quality and relevance of university education. The National Universities Commission (NUC), as the primary regulatory body, has emphasized the importance of both quality assurance mechanisms and external efficiency indicators in evaluating institutional performance (Obadara & Alaka, 2013). Yet, empirical evidence examining the relationship between these two critical dimensions remains limited, particularly in Delta State public universities. Research on administrative efficiency in Nigerian educational institutions emphasizes the connection between management practices and institutional productivity. Nkedishu (2022) found that administrative efficiencies significantly influenced teachers' productivity in Delta State secondary schools, with implications for understanding management effectiveness in higher education contexts within the same region.

External efficiency in education represents a fundamental concept that extends beyond the internal workings of educational institutions to examine how well these institutions serve broader societal and economic needs. According to Lockheed and Hanushek (1994), external efficiency addresses the extent to which educational outputs translate into meaningful societal outcomes, particularly in terms of labour market performance and economic productivity. This concept distinguishes itself from internal efficiency, which focuses on resource utilization within the educational system itself, by examining the relevance and applicability of educational outcomes in real-world contexts. The measurement of external efficiency has evolved considerably over recent decades. Traditional approaches focused primarily on quantitative indicators such as graduate employment rates and time-to-employment. However, contemporary scholarship emphasizes the importance of qualitative dimensions, including the

relevance of skills acquired, graduate performance in the workplace, and the alignment between educational outputs and labour market demands (Blašková & Staňková, 2023). Their study on graduate employability as a key to educational efficiency demonstrated that countries achieving high external efficiency scores, such as Ireland and France, excel not merely in producing large numbers of graduates but in ensuring these graduates possess highly relevant and marketable skills.

The distinction between internal and external efficiency proves particularly salient in understanding educational effectiveness. Internal efficiency concerns the transformation of educational inputs into learning outcomes through cost-effective processes, while external efficiency evaluates whether these learning outcomes translate into desirable social and economic returns (Hanushek & Lockheed, 1994). This conceptual separation becomes crucial when examining university performance, as institutions may demonstrate high internal efficiency in producing graduates while simultaneously exhibiting low external efficiency if those graduates struggle to secure appropriate employment or contribute meaningfully to economic development. Universities employ various instruments to assess and enhance their external efficiency, with graduate employability emerging as perhaps the most prominent indicator. The literature identifies several key instruments used to measure and track external efficiency outcomes. Tracer studies have gained widespread recognition as essential tools for evaluating graduate outcomes and institutional effectiveness. These studies systematically track alumni after graduation to gather data on employment status, job satisfaction, earnings, and the perceived relevance of their education to their current roles (Schomburg, 2016).

Research conducted across multiple system demonstrates the value of tracer studies in informing institutional decision-making. In the Philippines, studies by Cuadra et al. (2019) revealed high overall employment rates among graduates, with findings indicating that most secured positions related to their degree programs. However, the research also highlighted that professional networks and connections often proved more influential in securing employment than academic performance alone, suggesting that universities must consider social capital development as part of their external efficiency strategy. Similarly, Patulin et al. (2024) found that tracer studies provide crucial feedback loops enabling institutions to refine curricula, enhance student support services, and better align educational offerings with labour market requirements. The implementation of systematic alumni feedback mechanisms represents another critical external efficiency instrument. Institutions increasingly recognize that alumni perspectives offer invaluable insights into the strengths and weaknesses of educational programs. Research by Mendoza and Morales (2021) emphasized that alumni feedback serves dual purposes: it provides data for institutional improvement while simultaneously strengthening alumni engagement and institutional loyalty. Modern approaches to alumni tracking have incorporated digital platforms and web-based systems, making data collection more efficient and enabling real-time analysis of graduate outcomes (Lacuesta et al., 2019).

Employer engagement and industry partnerships constitute a third crucial category of external efficiency instruments. Universities that maintain strong connections with employers can better understand evolving skill requirements and adjust their curricula accordingly. Research examining graduate employability has consistently emphasized the importance of work-integrated learning, internships, and industry collaboration in preparing students for successful careers (Tymon, 2013). Studies from South African universities demonstrated that faculty influence, combined with practical learning opportunities facilitated through industry partnerships, significantly impacts graduate work readiness and labour market performance (Ngorora & Gomba, 2022). McQuaid and Lindsay (2005) developed a comprehensive framework identifying three categories of factors influencing employability: personal factors (including skills, qualifications, and attributes), individual circumstances (such as household situation and access to resources), and external factors (including labour market conditions and employer demand). This multi-dimensional perspective acknowledges that while universities can significantly influence graduate employability through curriculum design and skills development, external economic conditions and labour market structures also play crucial roles. The relationship between academic preparation and employability has garnered substantial research attention. Studies examining this connection reveal complex patterns. Research by Ho (2015) on matching university graduates' competencies with employer needs found that while technical knowledge remains important, employers increasingly value soft skills such as communication, teamwork, and problem-solving. This finding has significant implications for university curriculum design, suggesting that institutions must balance disciplinary expertise with the development of transferable skills.

Research has increasingly emphasized the role of universities in fostering employability as a core institutional mission. Tomlinson (2008) found that students themselves increasingly recognize the competitive nature of graduate labour markets and actively seek to develop employability attributes beyond their academic qualifications. However, this instrumentalization of higher education has sparked debate about whether the focus on employability undermines the intrinsic value of university education and its role in developing critical thinking and intellectual inquiry (McCowan, 2015; Barkas & Armstrong, 2022). The international dimension of employability adds further complexity. Global university rankings increasingly incorporate employability metrics, with surveys of recruiters and employers forming part of ranking methodologies (Hazelkorn, 2011). The Global Employability University Ranking, for instance, surveys employers worldwide to identify institutions best preparing graduates for workplace success. Such rankings both reflect and influence institutional priorities regarding external efficiency and graduate preparation.

Quality assurance in higher education encompasses the policies, processes, and practices designed to maintain and enhance institutional standards and educational effectiveness. The European Standards and Guidelines for Quality Assurance (ESG), widely adopted internationally, define quality assurance as encompassing both internal mechanisms within institutions and external evaluation processes conducted by independent agencies (ENQA et al., 2015). This dual approach recognizes that effective quality assurance requires both institutional commitment to self-improvement and external validation of standards. The evolution of quality assurance systems reflects changing priorities in higher education governance.

Historically, many systems emphasized input measures such as staff qualifications and resource availability. Contemporary approaches increasingly focus on learning outcomes, student achievement, and the demonstration of continuous improvement (Harvey & Green, 1993). This shift aligns with broader trends toward accountability and evidence-based decision-making in public sector organizations.

Internal quality assurance (IQA) mechanisms constitute the foundation of institutional quality management. Sanyal and Martin (2007) characterize IQA as comprising all internal mechanisms, instruments, and systems ensuring institutions meet their own standards as well as external requirements. Research on IQA implementation reveals that successful systems share common characteristics: strong leadership support, clear quality policies, systematic data collection and analysis, stakeholder involvement, and mechanisms for implementing improvements based on evaluation findings (Vlãsceanu et al., 2007). External quality assurance provides independent verification of institutional standards and promotes accountability to stakeholders. External QA typically involves periodic reviews conducted by authorized agencies, often including self-assessment, peer review by external experts, and publication of evaluation reports. Research evaluating academic audits in countries such as New Zealand and Australia demonstrates that well-designed external QA processes can strengthen institutional capacity for self-regulation and drive meaningful improvements (Kis, 2005). However, critics caution that overly bureaucratic approaches risk becoming compliance exercises that consume substantial resources while producing limited actual improvement.

The Nigerian higher education quality assurance system operates within a unique context shaped by rapid expansion, resource constraints, and evolving stakeholder expectations. The National Universities Commission (NUC) serves as the primary regulatory body responsible for maintaining standards through accreditation, program approval, and periodic institutional evaluations. According to NUC (2006), quality assurance encompasses the systematic review of educational programs to ensure acceptable standards of education, scholarship, and infrastructure are maintained. Research examining quality assurance implementation in Nigerian universities reveals both achievements and persistent challenges. Obadara and Alaka (2013) conducted a comprehensive study of accreditation's impact on quality assurance across Nigerian universities, finding significant positive relationships between accreditation exercises and resource inputs, output quality, and process quality. However, their research also identified weaknesses in ensuring quality of academic content, suggesting that compliance with procedural requirements does not automatically translate into enhanced educational quality. Studies focusing specifically on Nigerian universities in the Niger Delta region, which includes Delta State, highlight particular challenges these institutions face. Research by Igborgbor (2012) presented at Delta State University noted that quality assurance in this region must contend with issues including inadequate funding, infrastructural deficits, and enrollment pressures exceeding institutional capacity. Overcrowding has emerged as a particularly acute problem; data from NUC (2020) identified Delta State University among Nigeria's most overcrowded institutions, with excess enrollment of nearly 14,000 students beyond recommended capacity.

The establishment of institutional quality assurance units (IQAUs) represents a key strategy for strengthening quality management in Nigerian universities. Research examining IQAUs in Delta State colleges of education found that while these units have achieved some success in promoting quality consciousness and systematic evaluation, they face significant challenges including inadequate staffing, insufficient funding, limited authority, and resistance from academic staff unaccustomed to external scrutiny of their work (Joseph & Agih, 2007). Several scholars have examined stakeholder perspectives on quality assurance in Nigerian universities. Research by Eboka and Inomiesa (2015) on Delta State secondary education, which informs teacher preparation at the university level, emphasized that quality assurance-oriented institutions are characterized by attention to quality learners, learning environments, curriculum content, teaching and learning processes, and learning outcomes. These dimensions provide a useful framework for evaluating university quality assurance comprehensively.

While extensive literature addresses external efficiency and quality assurance separately, relatively few studies explicitly examine their interrelationship. This gap in the literature is particularly significant given that both domains ostensibly serve the overarching goal of enhancing institutional effectiveness and value to society. Theoretical considerations suggest multiple potential connections between these domains that warrant empirical investigation. First, quality assurance mechanisms may directly influence external efficiency outcomes by ensuring that curricula remain current, teaching quality is maintained, and graduates acquire necessary competencies. Research on institutional effectiveness emphasizes that accreditation processes, program reviews, and systematic assessment of learning outcomes can drive improvements in educational quality that subsequently enhance graduate preparedness for employment (Sullivan & Wilds, 2001). From this perspective, quality assurance serves as a prerequisite or facilitator of external efficiency. Alternatively, external efficiency indicators may inform and drive quality assurance processes. Institutions tracking graduate employment outcomes, conducting tracer studies, and gathering employer feedback can use this information to identify areas requiring improvement and inform quality enhancement initiatives. The feedback loop created when external efficiency data informs internal quality assurance represents a potentially powerful mechanism for institutional learning and adaptation. UNESCO (2015) guidelines for quality provision in cross-border higher education emphasize the importance of using outcome data, including graduate performance, to inform quality improvement efforts.

However, some scholars identify potential tensions between quality assurance and external efficiency priorities. Boden and Nedeva (2010) argue that the increasing emphasis on employability as a performative function of universities, shaped by state priorities and labor market demands, may compromise other important educational goals including intellectual development, critical thinking, and cultural enrichment. This perspective suggests that an excessive focus on external efficiency, particularly narrowly defined employment outcomes, could distort quality assurance priorities and undermine the broader purposes of university education. Research examining institutional practices reveals varied approaches to integrating external efficiency

considerations into quality assurance frameworks. Some institutions have explicitly incorporated employability and graduate outcomes into their quality assurance policies and review processes. The case study of University of Duisburg-Essen by Steinhardt et al. (2017) demonstrated how IQA systems can systematically address both internal educational quality and external stakeholder expectations, including employer requirements and labor market relevance, through integrated data collection and review processes. Benchmarking practices represent one mechanism through which institutions attempt to address both quality assurance and external efficiency simultaneously. Benchmarking involves systematic comparison of institutional processes, practices, and outcomes against those of peer institutions or industry standards (Jackson, 2001). Research on benchmarking in higher education suggests it can serve quality assurance purposes by identifying improvement opportunities while simultaneously addressing external efficiency by helping institutions understand how their graduate outcomes compare with other institutions (Seybert et al., 2012).

Empirical research examining the impacts of quality assurance on institutional performance yields mixed findings. Some studies demonstrate positive relationships between systematic quality assurance practices and various performance indicators. Research conducted in Ghana by Materu (2007) found that institutions with well-developed quality assurance systems showed improvements in resource management, curriculum development, and stakeholder satisfaction. Similarly, studies in European contexts have documented that participation in external quality assurance processes can stimulate institutional reflection and promote cultures of continuous improvement. However, other research raises questions about the effectiveness of quality assurance in achieving substantive improvements. A European-level study comparing quality assurance systems and institutional outcomes found weak or inconsistent relationships between the comprehensiveness of quality assurance arrangements and measures of educational quality or graduate success (European Commission, 2014). These findings suggest that the presence of quality assurance structures does not automatically translate into better outcomes, and the specific design and implementation of quality assurance processes matter significantly. Research examining Nigerian universities' quality assurance practices provides insights into contextual factors influencing effectiveness. Awe (2007) found significant differences in compliance with quality assurance measures between first-generation and later-generation universities, with older, more established institutions generally performing better. Federal universities also demonstrated higher compliance than state universities, likely reflecting differences in resource availability. These findings suggest that the effectiveness of quality assurance systems depends substantially on institutional capacity and resources. Studies examining stakeholder perceptions of quality assurance reveal important insights. Research by Ayeni and Adelabu (2012) on quality assurance in secondary schools in Ondo State, which has implications for university-level education in the South-West region, found that while education stakeholders generally recognized the importance of quality assurance, implementation was hampered by inadequate infrastructure, insufficient funding, and limited stakeholder participation in quality assurance processes. These challenges resonate with findings from university-level studies.

A. Statement of the Problem

Public universities in Delta State occupy a strategic position in Nigeria's higher education system, with the mandate to produce graduates who possess relevant knowledge, skills, and competencies required for national development and labour market competitiveness. In recent years, however, concerns have intensified regarding the quality of university outputs, graduate employability, relevance of academic programmes, and the overall responsiveness of universities to societal and economic needs. These concerns have shifted attention beyond internal academic processes to the role of external efficiency instruments mechanisms that link universities to the labour market, regulatory agencies, professional bodies, and broader society in ensuring quality and relevance in higher education. External efficiency instruments such as accreditation exercises, employer feedback, tracer studies, industry-university partnerships, professional body requirements, and labour market alignment mechanisms are expected to serve as critical feedback and accountability tools for universities. Ideally, these instruments should inform curriculum design, teaching–learning processes, assessment practices, and institutional improvement efforts, thereby strengthening quality assurance practices. Despite the existence of these instruments in Nigerian universities, anecdotal evidence and policy reports suggest persistent gaps between university training and labour market expectations, uneven implementation of accreditation recommendations, and limited systematic use of external feedback in quality assurance processes within public universities.

In Delta State public universities, quality assurance mechanisms ranging from internal quality assurance units and programme reviews to external accreditation and regulatory oversight are formally in place. The choice of Delta State public universities as the study context is informed by previous research examining educational administration and institutional effectiveness in the region (Nkedishu, 2023; Nkedishu et al., 2025), which provides baseline understanding of administrative practices and environmental factors affecting educational outcomes. However, questions remain as to the extent to which these quality assurance strategies are effectively driven by external efficiency considerations. Observed challenges such as graduate unemployment, employer complaints about skill mismatches, and recurring accreditation deficiencies raise doubts about whether external efficiency instruments are optimally utilized or meaningfully integrated into institutional quality assurance frameworks. A critical problem, therefore, lies in the limited empirical evidence on the nature of external efficiency instruments employed by Delta State public universities, the specific quality assurance strategies implemented, and, more importantly, the extent to which both are related. Existing studies in higher education quality assurance in Nigeria have largely emphasized internal processes, governance, and teaching effectiveness, with relatively little attention paid to the linkage between external efficiency instruments and quality assurance outcomes at the university level. Against this background, the problem of this study is the lack of systematic and empirical understanding of how external efficiency instruments operate in Delta State public universities and whether their use significantly relates to

the quality assurance strategies implemented. Addressing this problem is crucial for strengthening accountability, enhancing programme relevance, and improving the overall quality and societal value of university education in Delta State.

B. Research Questions

The following questions were raised.

1. What are the primary external efficiency instruments employed in Delta State public universities?

2. What quality assurance strategies are implemented in Delta State public universities?

3. What is the relationship between primary external efficiency instruments employed and quality assurance strategies are implemented?

C. Hypothesis

The following hypotheses were formulated and tested at significance level of 0.05.

1. Primary external efficiency instruments employed and quality assurance strategies implemented are not significantly related.

II. RESEARCH METHOD

This study adopted a correlational survey design using the ex-post-facto approach to evaluate external efficiency instruments and their relationship with quality assurance in Delta State public universities. The population comprised 1878 Heads of Department and teaching staff in the public universities, from which a sample of 274 was drawn using a proportional stratified random sampling technique, involving the random selection of 50% of Heads of Department and 10% of teaching staff. Data were collected using a self-developed questionnaire titled External Efficiency and Quality Assurance Questionnaire (EEQAQ), structured into external efficiency instruments, and quality assurance strategies, and rated on a four-point Likert scale. The instrument was subjected to face and content validation by experts in Educational Management, and its reliability was established through the Cronbach Alpha method, which yielded an acceptable coefficient of 0.76. Data were analyzed using mean and standard deviation as well as coefficient of determination to answer the research questions, while the Pearson Product Moment Correlation was used to test the hypothesis on the relationship between external efficiency instruments and quality assurance strategies at the 0.05 level of significance, with all analyses conducted using SPSS version 23.

III. RESULT

Research Question 1: What are the primary external efficiency instruments employed in Delta State public universities?

Table 1: Mean score analysis on primary external efficiency instruments employed

S/N	External Efficiency Instruments	Mean	SD	Remark
1.	Graduate tracer studies	2.68	0.81	Agreed
2.	Alumni feedback mechanisms	2.74	0.79	Agreed
3.	Employer satisfaction surveys	2.61	0.84	Agreed
4.	Industry advisory boards	2.55	0.88	Agreed
5.	Graduate employment rate monitoring	2.83	0.76	Agreed
6.	Internship and Work-Integrated Learning Programs	2.91	0.72	Agreed
7.	Curriculum-labour market alignment reviews	2.79	0.80	Agreed
8.	Graduate competency assessment	2.66	0.83	Agreed
9.	Job-education match analysis	2.52	0.86	Agreed
10	Alumni career progression tracking	2.47	0.89	Disagreed

In response to Research Question 1, the results presented in Table 1 show that Delta State public universities employ a range of external efficiency instruments to varying degrees. The mean ratings indicate agreement on nine out of the ten listed instruments, as their mean scores exceeded the benchmark of 2.50. Notably, internship and work-integrated learning programmes (Mean = 2.91, SD = 0.72) and graduate employment rate monitoring (Mean = 2.83, SD = 0.76) emerged as the most prominent instruments, suggesting a strong emphasis on practical exposure and labour-market outcomes. Other commonly employed instruments include alumni feedback mechanisms, curriculum–labour market alignment reviews, graduate tracer studies, employer satisfaction surveys, and graduate competency assessments, reflecting efforts to align academic programmes with external stakeholder expectations. However, alumni career progression tracking recorded a mean score below the decision threshold (Mean = 2.47, SD = 0.89), indicating that this instrument is not adequately employed.

Research Question 2: What quality assurance strategies are implemented in Delta State public universities?

Table 2: Mean score analysis on quality assurance strategies are implemented

S/N	Quality Assurance Strategies	Mean	SD	Remark
1.	Institutional quality assurance unit	3.12	0.68	Agreed
2.	Regular program accreditation	3.25	0.64	Agreed
3.	Systematic Curriculum Review and Updating	3.08	0.71	Agreed
4.	Student learning outcomes assessment	2.94	0.75	Agreed
5.	Staff Development and Training Programs	2.89	0.78	Agreed
6.	Student Evaluation of Teaching	3.01	0.73	Agreed
7.	Peer Review of Teaching and Research	2.87	0.77	Agreed
8.	Maintenance of Minimum Academic Standard	3.18	0.66	Agreed
9.	Quality assurance data management system	2.69	0.82	Agreed
10.	Stakeholder Engagement in Quality Assurance	2.76	0.80	Agreed

In response to Research Question 2, the results in Table 2 indicate that a wide range of quality assurance strategies are implemented in Delta State public universities, as all the listed strategies recorded mean scores above the decision benchmark of 2.50. Regular programme accreditation (Mean = 3.25, SD = 0.64) and maintenance of minimum academic standards (Mean = 3.18, SD = 0.66) ranked highest, underscoring the central role of regulatory compliance and standard-setting in the universities' quality assurance practices. The presence of institutional quality assurance units, systematic curriculum review and updating, student evaluation of teaching, and assessment of student learning outcomes further reflects a structured approach to monitoring and improving academic quality. In addition, staff development and training programmes, peer review of teaching and research, and

stakeholder engagement in quality assurance suggest efforts toward continuous improvement and inclusiveness in quality processes. Although quality assurance data management systems recorded a comparatively lower mean score (Mean = 2.69, SD = 0.82).

Research Question 3: What is the relationship between primary external efficiency instruments employed and quality assurance strategies are implemented?

Table 3: Relationship between primary external efficiency instruments employed and quality assurance strategies are implemented

Variable	Mean	SD	r	r^2	r^2%	Remark
External Efficiency Instruments	2.68	0.82	0.610	0.372	37.2%	Significant Relationship
Quality Assurance Strategies	3.00	0.74				

Data in Table 3 shows relationship between the primary external efficiency instruments employed and quality assurance strategies are implemented. The result shows a mean score of 2.68, SD = 0.82 for external efficiency instrument and mean score of 3.00, SD= 0.74 for quality assurance strategies. The computed r value of 0.610 shows that there is a positive relationship between primary external efficiency instruments employed and quality assurance strategies are implemented. The r2 value of 0.372 revealed that external efficiency instrument relates to quality assurance strategies by 37.2%.

Hypothesis 1: Primary external efficiency instruments employed and quality assurance strategies implemented are not significantly related.

Table 4: Pearson r primary external efficiency instruments employed and quality assurance strategies are implemented

		Primary External Efficiency Instruments Employed	Assurance Strategies Implemented
Primary External Efficiency Instruments Employed	Pearson Correlation	1	0.610**
	Sig. (2-tailed)		0.000
	N	271	271
Assurance Strategies Implemented	Pearson Correlation	0.610**	1
	Sig. (2-tailed)	0.000	
	N	271	271

**Significant at 0.05

Table 4 shows a Pearson's r value of 0.610 and a p-value of .000 testing at an alpha level of .05, the p-value is less than the alpha level, so the null hypothesis which states that primary external efficiency instruments employed and quality assurance strategies implemented are not significantly related was rejected. Thus, primary external efficiency instruments employed and quality assurance strategies implemented are significantly related.

IV. DISCUSSION OF RESULTS

Finding revealed that the primary external efficiency instruments employed in Delta State public universities include graduate tracer studies, alumni feedback mechanisms, employer satisfaction surveys, industry advisory boards, graduate employment rate monitoring, internship and work-integrated learning programs, curriculum-labour market alignment reviews, graduate competency assessment and job-education match analysis. This finding supports Cuadra et al. (2019) who demonstrated that tracer studies effectively assess college education outcomes by tracking graduate experiences and career paths. Research shows tracer studies inform institutions about program effectiveness and graduate job market preparation. Toquero et al. (2024) who found tracer studies examine graduates' socioeconomic conditions, revealing increased family income post-graduation. The Employer Satisfaction Survey provides information about education quality by collecting supervisor feedback on graduates' generic skills, technical skills, and work readiness (QILT, 2024). Cagaoan (2025) who found employers rated graduates' competencies as very adequate across all domains, with quality of work scoring highest, while leadership, communication, problem-solving, and ICT skills were also highly rated. Jackson and Rowe (2023) who found student employment influenced participation in work-integrated learning and employability-building activities. Their research revealed work-integrated learning packages relevant experience with reflection and feedback to connect classroom learning with workplace practice.

Finding revealed that the quality assurance strategies are implemented in Delta State public universities include institutional quality assurance unit, regular program accreditation, systematic curriculum review and updating, student learning outcomes assessment, staff development and training programs, student evaluation of teaching, peer review of teaching and research, maintenance of minimum academic standard, quality assurance data management system and stakeholder engagement in quality assurance. This finding supports Obadara and Alaka (2013) wo found significant relationships between accreditation and resource input, quality of output, and quality of process in Nigerian universities. The National Universities Commission defined quality assurance as systematic review of educational programmes to maintain acceptable standards of education, scholarship, and infrastructure (NUC, 2006). Monteiro et al. (2017) who explored relationships between effective learning outcomes implementation and employability skills, providing insights on academic learning outcomes' relevance to employability. Research shows learning outcomes describe what students should demonstrate based on their learning histories.

Finding revealed that the primary external efficiency instruments employed and quality assurance strategies implemented are significantly related. This finding is justified because external efficiency instruments provide critical feedback from the labour market, alumni, and employers, which directly informs and strengthens curriculum review, accreditation processes, and other quality assurance strategies, thereby creating a strong alignment between institutional quality practices and societal expectations. This finding aligns with the findings of the Commonwealth of Learning (2024) that emphasized that quality assurance mechanisms ensure graduates acquire skills needed for career adaptation, with the Bologna Declaration highlighting employability as a fundamental goal linked to quality. National quality assurance agencies collected baseline data on institutional employability enhancement practices, developing ten implementation frameworks including competency-based mapping and tracer

studies. Research found strong correlation between employer and graduate perceptions of employability skills priorities, with enthusiasm, dependability, and teamwork scoring higher than subject knowledge (Jackson & Rowe, 2023). Yang et al. (2025) demonstrated employability skills were positively associated with employment quality, with academic achievement partially mediating this relationship. Work-integrated learning influenced employability-building activities, demonstrating how quality assurance of experiential learning directly impacts external efficiency outcomes (Jackson & Rowe, 2023). Research shows career engagement and perceived employability are dynamically interconnected during school-to-work transition, emphasizing connections between career development and graduate employability.

V. CONCLUSION

Based on the findings of the study, it can be concluded that Delta State public universities employ a broad range of external efficiency instruments aimed at enhancing graduate relevance and labour market alignment, including tracer studies, employer feedback, internship programmes, and curriculum–labour market reviews. In addition, the universities have institutionalized several quality assurance strategies, such as quality assurance units, regular programme accreditation, curriculum review, staff development, and stakeholder engagement, which collectively support the maintenance of academic standards. Most importantly, the study established a significant relationship between external efficiency instruments and quality assurance strategies, indicating that effective engagement with external efficiency mechanisms positively influences the strength and effectiveness of quality assurance practices in Delta State public universities. This underscores the critical role of external feedback and labour market responsiveness in sustaining and improving university quality.

A. Recommendations

Based on the findings the following recommendations were made:

1. Delta State public universities should institutionalize and regularly conduct graduate tracer studies, employer satisfaction surveys, and alumni feedback mechanisms, ensuring that the outcomes are systematically integrated into curriculum review and quality assurance decision-making processes.

2. University management should deepen partnerships with industry through functional advisory boards and expanded internship and work-integrated learning programmes to further align academic programmes with labour market needs and enhance graduate employability.

3. Universities should improve their quality assurance data management systems to effectively capture, analyze, and utilize data from external efficiency instruments, thereby supporting evidence-based planning, continuous improvement, and accountability in quality assurance practices.

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