Influence of Internal System Evaluation Practices and Environment on Student Performance in South Western Nigerian Universities

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Abstract
Evaluation is key to system improvement in higher institutions and the nation. When the efficacy of the system is not evaluated periodically, and especially if the results of such evaluations are not ploughed back into the system, it will be difficult to establish whether or not there is progress toward the achievement of institutional goals. This study utilized the input, process and output evaluation strands of the CIPP and FAMOUS evaluation models to assess the interaction of internal evaluation practices in six South-Western States in Nigeria, consisting of 18 universities drawn from Private, State and Federal institutions. Multi-stage random sampling technique was used to get a sample size of 844 respondents. Researchers-developed and validated questionnaires, interview and observation were used for data collection. 4 research questions were raised and two hypotheses tested using Standard Deviation, Chi square and ANOVA, along with frequency counts. Findings revealed an $F(^2/_{841})$ *value of 9.58. This shows a significant difference in the responses among lecturers, students and administrators, but low level of adherence to internal evaluation by universities. This is because many rely on the external accreditation exercise by the NUC alone, and there was no uniformity of approach among those who practiced internal system evaluation. The overall use of internal evaluation was also found to affect student output in terms of graduating grades. It was suggested that internal evaluation within the university system be taken more seriously and follow some kind of format like the one developed in the study to ensure uniformity and improvement in system output as well as ensure national transformation.*

***Key words**: Internal System Evaluation, University Environment, Methods, Student Output*

Introduction

Evaluation forms a core necessity in universities' activities. There are different types of evaluation, both internal and external, all conducted on Students, Lecturers as well as the System itself. The National Universities Commission (NUC) is the regulating body mandated to ensure that standards are maintained in the universities in Nigeria. This is achieved through an external periodical

evaluation process, referred to as the Accreditation Exercise. It was noted that for the NUC accreditation purposes (which is external) most institutions were usually at their "peak performance", with near perfect records, facilities and personnel documentation. However, after the exercise, scarcely were efforts made to conduct what is known as the School's Self-Evaluation (internal evaluation), the essence of which will be to ensure agreement between the reports of the internal and the external evaluations of the institution (Alade, Oke and Esiobu, 2010). They further asserted that although Whole School Evaluation sustains standards and shows the continuous readiness of the institution for accreditation, such an evaluation will be valid only if it is conducted within the context of the environment of each institution.

Environment in this study refers to the totality of the surrounding conditions and situation in which learning occurs (infrastructure and facilities, curriculum content and delivery method, among others). In Nigeria, three distinct learning environments can be identified and these are Federal Universities, established and funded by the Federal Government; State Universities which are established and funded by the establishing States, and the Private Universities, which are owned and funded by individuals or faith-based organizations. These three categories of learning environments can be easily identified in terms of facilities provided.

There is no doubt that the goal of any institution is to produce worthy graduates; however, the prevailing environment or total climate of the institution may influence what this outcome will be. Nifarta (2010) finds that students who see their environment as favourable adopt a deeper learning strategy and acquire better generic skills as they are satisfied with their courses. A study by Ojogwu and Alutu (2009) on learning environment of university students revealed a learning environment that was very much below standard in the University studied. A similar study conducted on a State University by Osakinle, Onijigin and Falana (2010) revealed a positive and significant relationship between teaching effectiveness and learning environment. Another study by Ikonta, Bakare, Onyene & Uzoka (2011) found out that the content and content delivery in the teaching and learning processes were vital to quality assurance practices. They have also suggested that the method of evaluation and availability of infrastructure have been found to affect the system output in terms of quality of graduates.

Conceptual framework

The study is modeled on two theories. These are Stufflebeam's (2003) CIPP model (context, input, process & product – see **Fig. 1**) and the FAMOUS model (Formulate, Ascertain, Measure, Observe, Use, Strengthen – see **Fig. 2**) - Ohia (2009).

Fig. 1: CIPP Model: Stufflebeam (2003)

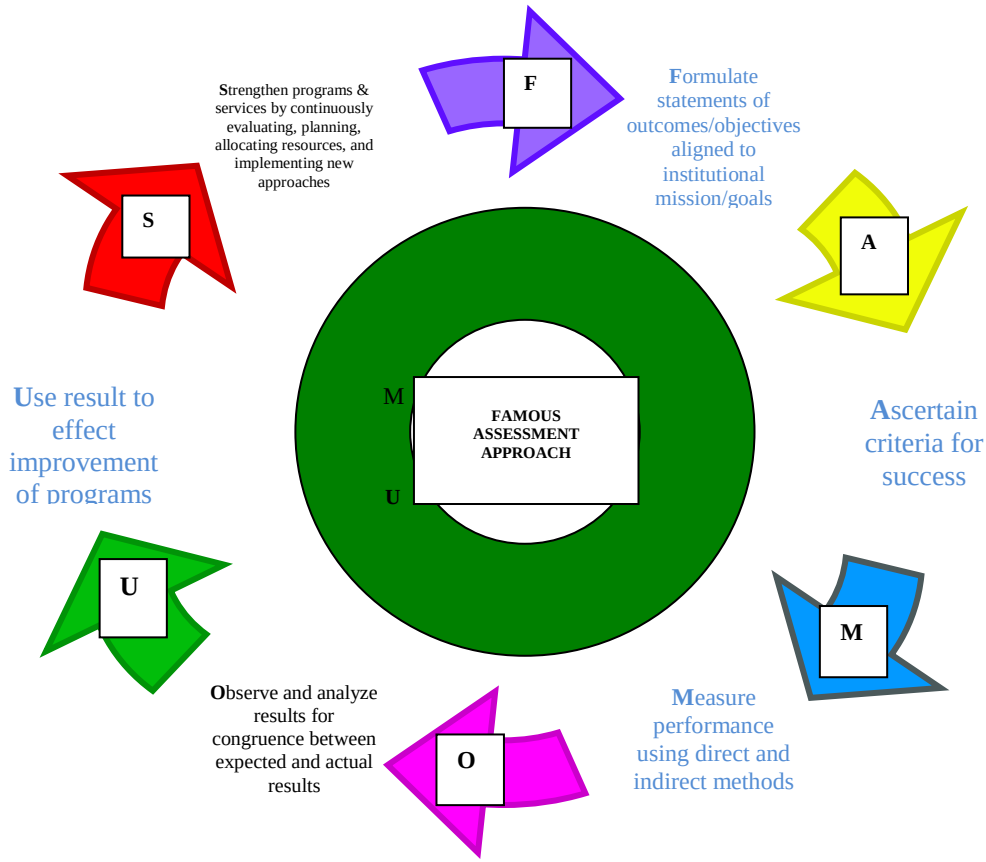


Fig. 2: FAMOUS evaluation model (Ohia, 2009)

The CIPP model is decision-oriented and comprehensive, but one may often not use every part in a single evaluation. Its strongest drawback is that it does not emphasize feedback at every stage as the FAMOUS model does (fig. 2). The FAMOUS Evaluation Model by Ohia (2009) is another evaluation tool that is popular for system and student evaluation. This model is a formative type of approach to evaluation; hence the emphasis is on feedback to the system for improvement. The two models are relevant to the study because they ensure a more effective system evaluation process. Against the background of the two theories, the study was based on the input, process and output of the institution, but feedback was emphasized at every level. The study further attempted to establish the level of institutional support available for evaluation process to enhance the production of quality graduates for the Nigerian nation. The study

then focused on identifying major challenges and provided justification for intervention.

The proposed model in figure 3 (synthesized from both models above) is to emphasize the Whole School Evaluation process, but with more emphasis on feedback into system operations at every stage, and even more so at the final stage to be incorporated into the beginning of a fresh cycle. This is to encourage modifications that can improve system operations through the incorporation of corrections, and addressing issues as they arise, thereby making for better educational management and effectiveness.

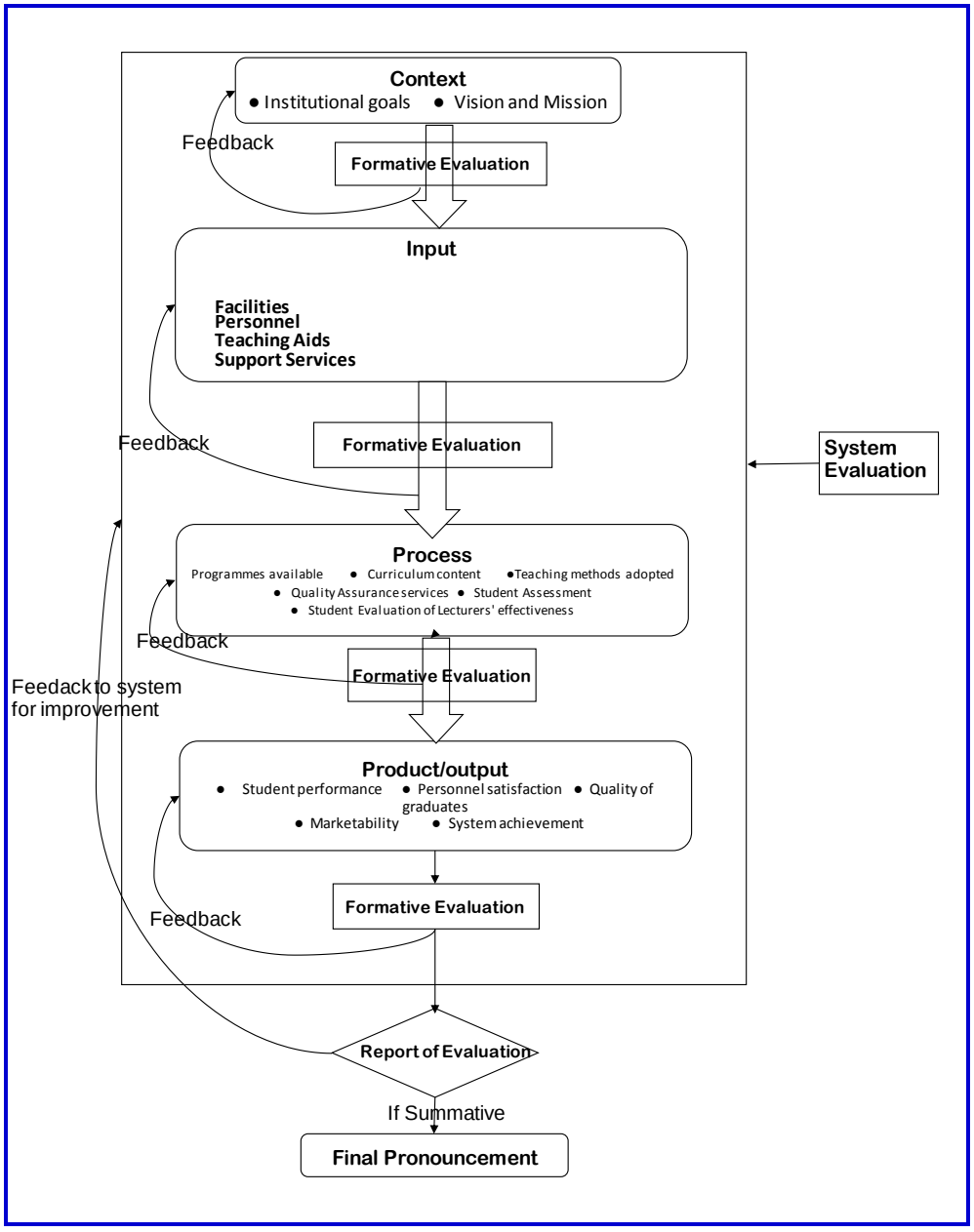


Fig. 3: Internal System Evaluation Model for Universities – Developed by the Researchers (Bakare & Alade, 2015)

Statement of the Problem

It is common knowledge that the NUC conducts external evaluation of Nigerian Universities intermittently through the accreditation process, as part of its duties. After the NUC accreditation, it is not clear, whether efforts are made to sustain good practices by the Universities, through appropriate internal evaluation of the system in order to ensure a conducive learning environment and maintain accreditation standards. As it is, one cannot confidently say that internal evaluation is carried out by every University, not to talk of the results being fed back into the system. This could be a dangerous trend because, if regular and rigorous internal evaluation is not carried out, there cannot be improvement in the system and quality of the graduates may be affected; it might even result in system failure. It is against this background therefore that the study assessed the internal system evaluation practices in Universities in South West Nigeria, especially as it affects the output or achievement of system objectives.

Purpose of the Study

This study assessed the practice of internal system evaluation of Universities in South West Nigeria within the context of the institutions. The study therefore examined current evaluation practices to document the effect of internal evaluation practices and learning environment on student outcome. The study is thus to:

- assess the practice of internal system evaluation of universities;
- examine current evaluation practices;
- identify the effects of internal evaluation practices and learning environment on students´ outcome;
- ascertaining the level of engagement of Nigerian Universities in internal system evaluation;
- identify different approaches used by Nigerian Universities for internal evaluation processes, and
- identify the link between the practice of internal system evaluation conducive environment and achievement of institutional objectives through students´ output.

Research Questions

The study will be guided by the following research questions:

1. To what extent and how do Universities engage in internal system evaluation?

2. What are the approaches to the internal evaluation process uniform among the Universities, especially with respect to (a) the method and (b) frequency of the exercise?
3. What is the Universities' evidence of the use of modern instructional methods and materials, sufficient assessment activities and provision of feedback for students and for lecturers?
4. Is there any difference in the pattern of class of pass among the graduating students in Nigerian Universities?
5. Will the achievement of institutional objectives (through student output) be affected by the internal system evaluation process and learning environment?

Hypotheses

1. There is no significant difference between the responses from the lecturers, students and administrators of the Universities on the process of internal system evaluation in their institutions.
2. There is no significant difference between the quality of pass of graduates in Private and Public institutions.

Significance of the Study

The study is significant in many ways. The outcome will call the attention of program planners to a renewed awareness of the importance of the internal evaluation process in achieving institutional objectives and ultimately improving quality of graduates in Nigeria. The findings will serve as a reference point for work in the field of institutional evaluation. Nigerian University administrators will realize the importance of internal evaluation and the need for feedback to be given and be integrated into the system to ensure improvement of all activities within the system.

Methodology

The study made use of Survey and Ex-post Facto designs as it is observing the status quo. It audited what was going on with institutional system evaluation. The population of the study comprised all undergraduate students in full time programs of all the Universities in the South Western zone of Nigeria including the Lecturers and Administrators. South West Nigeria was randomly selected for the study and was found suitable because the seat of power in Nigeria was initially within the zone and this encouraged people from every part of the country to be represented in this zone, making it a microcosm of Nigeria. Besides, the first Nigerian University (University of Ibadan) is located within the zone. All these

will make the findings of the study to be easily generalisable. The sample comprised 720 Undergraduates, 82 Lecturers and 42 Administrators selected from eighteen (18) Universities in South West Nigeria, using stratified random sampling technique. The universities were first stratified according to their State of location, next, in each State; they were stratified according to type of ownership, that is, Federal, State and Private. One University was thus selected from each ownership type, using random sampling technique and then the proportionate ratio of students' (undergraduates) population in each selected university. 720 students were selected in all. The sample was taken pro-rata according to the institutional student strength. 72 Lecturers in all were also proportionately and randomly selected among those teaching Faculty and University-wide courses, as they were the ones who had contact with the higher number of students. 42 Sectional Heads in all were also selected from the Academic Planning and Administrative Units of the universities for interview to corroborate the documentations and other information obtained from the other sources in the Universities. This made a total of 844 respondents in all from the 18 universities used for the study. The instruments used were Questionnaires, Interview and Observation Schedule with a Checklist and were all constructed by the researchers. The Questionnaires were titled 'Questionnaire on Institution Evaluation for students' (QIES) and 'Questionnaire on Institution Evaluation for Lecturers' (QIEL). The response format was Likert type for all the questionnaires and their scoring followed the format of strongly agree (SA - 4), agree (A - 3), disagree (D - 2) and strongly disagree (SD - 1). The negative statements were reverse-scored. The instruments were validated and the reliability quotient from the test-retests conducted during the pilot study at three weeks interval yielded 0.68 for QIEL and 0.72 QIES respectively. The Observation Schedule was to observe the Lecturers' teaching methods; the checklist was for facilities available in each University and the Interview Schedule was used with the Administrators for corroboration. The main researchers visited the different institutions to meet the respondents. They were aided by two trained assistants (PhD candidates in the Faculty). Collected data were analyzed using descriptive statistical tools (Percentages, Mean and Standard Deviation and ANOVA).

Results

All the 18 universities sampled in the study were visited. The findings are presented as follows:

Research question 1: To what extent and how do Universities engage in internal system evaluation? Of the 42 administrators asked if they conducted any kind of

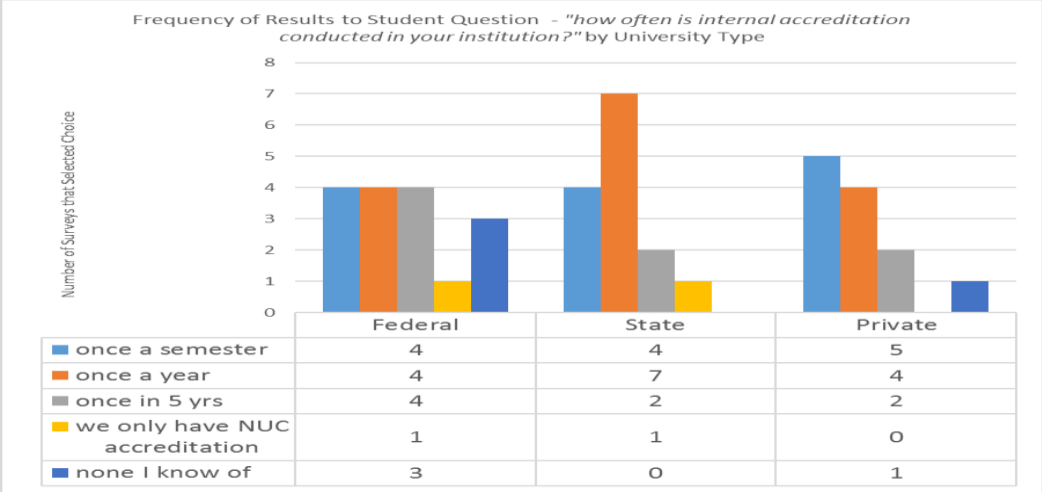
internal system evaluation, 28 (66.7%) claimed their institution did while the remaining 14 (33.3%) opined they did not.

Research question 2: Are the approaches to the internal evaluation process uniform among the universities, especially with respect to (a) the method and (b) frequency of the exercise, Information on question 2 was gathered via three sources – the Students, Lecturers and Administrators. There was a general consensus with mode of students' evaluation - through various continuous assessment tasks and examinations; and the Lecturers' – through the processing of the Annual Performance Evaluation (APER) forms and assessment of publications. However few (27%) students indicated that they were allowed to evaluate their lectures' performance. The lecturers (83%) and students (96%) said they did not participate in any exercise they are aware of, to evaluate their University at the internal level. The administrators' responses to how internal evaluation was conducted in the universities yielded the result presented in Table 1.

Table (1): Pattern of the Administrators' Responses to the Method of Data Collection for Internal Evaluation in the Universities

Mode of collection	Fed	State	Pri	Percentage
Use of questionnaire	8	9	9	26 (62%)
Online opinionnaire	2	1	2	5 (12%)
Physical visits	2	1	-	3 (7%)
Personal interviews	1	2	1	4 (10%)
None conducted	3	1	-	4 (10%)
				42 (100)

Table 1 presents the Administrators' responses to the method used to collect internal evaluation information from the institutions. The most popular method they reported was the use of questionnaire (62%), while the least popular (7%) was paying physical visits. The pattern of the Administrators' responses on the frequency of internal evaluation conducted in their universities is as presented in Figure 3.

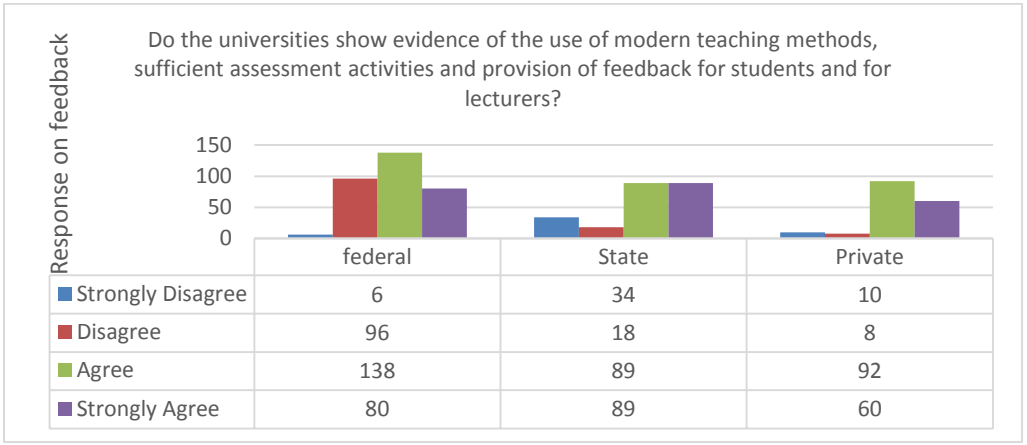


	Federal	State	Private
once a semester	4	4	5
once a year	4	7	4
once in 5 yrs	4	2	2
we only have NUC accreditation	1	1	0
none I know of	3	0	1

Fig. 3: Bar Chart of Administrators' Responses on Frequency of Internal Evaluation by University Type

As presented in Figure 3, 13 (31%) of the Administrators admitted that the frequency was once per semester, 15 (36%) reported once a year, 8 (19%) responded once in 5 years, 2 (5%) responded that they only do the NUC accreditation exercise while 4 (10%) of them responded "none that I know of". This is however not in consonance with the responses from Students and Lecturers.

Research question 3: Did the Universities show evidence of the use of modern instructional methods and materials, sufficient assessment activities and provision of feedback for students and for lecturers?



	federal	State	Private
Strongly Disagree	6	34	10
Disagree	96	18	8
Agree	138	89	92
Strongly Agree	80	89	60

Fig. 4: System Evaluation of Teaching Methods

Figure 4 shows the distribution of responses from students on the use of modern teaching methods, among others. Also responses from the questionnaire by lecturers and the observations indicated that the majority (13 – 72%) of the Universities used the writing board exclusively and still relied heavily on the traditional Straight Lecture method of instruction. The remaining 5 (28%) had evidence of using ICT to enhance their instructional process; some even had the interactive boards installed in some lecture rooms. For the part of the question which sought to find out what was usually done with the results of internal evaluation polls conducted. The Responses ranged from 'it is ploughed back into the system', 'it is filed away' to 'it is not used at all'. Only 30 administrators responded that they plough result of evaluation back into the system; of these, 30% each came from the Federal and State Universities while 40% (the highest), were from the Private Universities. 50% of those who responded that they filed them away were from the Federal and State Universities respectively. 75% of those who responded that they seldom used the results were mainly from the Federal universities. All those who responded that they kept the result in view were also from the Federal and State Universities. Generally, the responses on feedback to students were very poor.

Research Question 4 was answered together with hypothesis 2.
Question 5 sought to establish if internal system evaluation and learning environment affect the achievement of institutional objectives through students´ output? Universities, as indicated in the achievement of institutional objectives through students output were found to affect the achievement of system objectives through students´ output, and the comparison of institutional level of internal evaluation practices along with environment showed that there was a link.

The first hypothesis stated that there will be no significant difference between the responses from the lecturers, students and administrators of the Universities on their perception of the process of internal system evaluation in their institutions. The total individual responses on their perception on common items across the Private and Public institutions were further subjected to treatment with ANOVA. Results are indicated in **Table 2**.

Table 2: Internal System Evaluation in Universities (ANOVA)

Group	N	Mean	Std. Deviation
Student	720	26.20	5.50
Administrator	42	22.79	3.61
Lecturer	82	27.12	5.40
Total	844	125.11	5.47

	Sum of squares	df	Mean Square	F	Sig.
Between groups	562.06	2	281.03	9.58	.00
Within groups	24669.88	841	29.33		
total	25231.94	843			

Responses show that lecturers have the highest score of 27.12, followed by students at 26.20. The calculated **F(**$^{2}/_{841}$**)** of 9.58 shows a statistical difference in the responses. It was therefore subjected to further tests to determine where the difference laid. Evidence from table 2 indicates that the calculated F value of 9.58 is statistically significant since it is greater than the theoretical F value of 3.00, given 2 and 841 degrees of freedom at 5 percent level of significance. The hypothesis which states that there will be no significant differences between Lecturers, Students and Administrator responses in their perception of presence of internal system evaluation practices in the universities was therefore rejected. Since the F value was statistically significant, it was necessary to perform a post-hoc analysis to determine homogenous sub-sets as indicated in the second half of Table 2.

Research question 4 and hypothesis 2 are answered together here. Question 4 asks is there any significant relationship in the class of pass among the graduating students in Nigerian Universities´?

The graduation history of up to 4 years was also summarized for all the Universities and the result is presented in fig. 5.

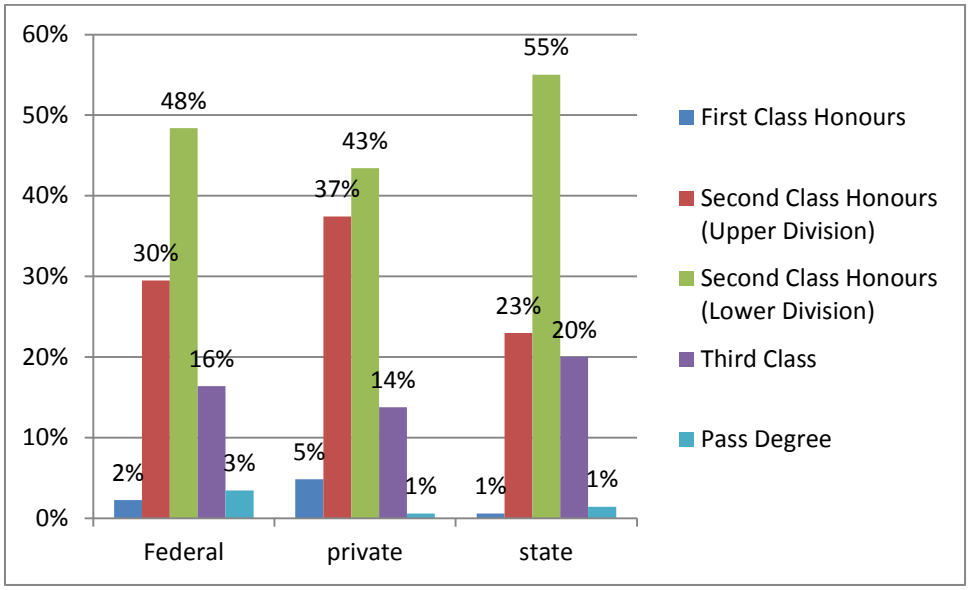


Fig. 5: Graduating Class of Students for 4 Sessions for the Universities (aggregated)

The summary was further subjected to the Chi Square statistic and the result is shown in **Table 3**.

Table 3: Chi-square of graduating class according to University type:

Class of pass	Federal	State	Private	Total	Chi Square	Critical Value	Df	Decision
1st class	1058 (68.13%)	233 (15.0%)	262 (16.87%)	**1553**	**1789.43**	**15.507**	**8**	**reject**
2nd class upper	13553 (52.15%)	2076 (7.99%)	10359 (39.86%)	**25988**				
2nd class lower	22498 (44.72%)	3001 (5.96%)	24815 (49.32%)	**50314**				
3rd class	7739 (43.04%)	1226 (6.82%)	9015 (50.14%)	**17980**				
Pass degree	1716 (70.85%)	62 (2.56%)	644 (26.59%)	**2422**				
unclassified	2977 (16.78%)	0 (0%)	14765 (83.22%)	**17742**				
	49541	**6598**	**59860**	**115999**				

The Chi Square value was greater than the critical value, thus the hypothesis that there is no significant difference between the quality of pass of graduates in Private and Public institutions was rejected. This suggests there is a significant difference in the distribution of quality of pass among the University types. The study was however unable to fully establish the extent of the effect of system

evaluation on the output. This could be revealed through further study. However, it is evident that there is a link between the total environment and process of evaluation in the universities and student output, to an extent.

Discussion

The research work covered eighteen Universities. The findings revealed a presentation of different styles of internal system evaluation practices. Evidence of internal system evaluation was found in most of the Universities, although the way that the institutions conducted their evaluation varied. Findings however, revealed a general lackluster level of internal system evaluation. Many institutions were found to rely only on the external evaluation (accreditation exercise) by the NUC. The few that showed evidence of internal evaluation did it sporadically and without zeal.

- Generally, students were examined through continuous assessment and Semester Examinations, while Lecturers were usually evaluated using the filled Annual Performance Evaluation Reports (APER) for increment and promotion exercises. This is the extent to which internal system evaluation is perceived to cover in many of the institutions. The practice of students evaluating their lecturers was not common as buttressed in findings by Iyamu, Eze and Aduwa-Oglebaen (2005).
- There was no uniformity in the method of conducting internal system evaluation in the Universities and the evaluation results were largely not ploughed back into the system for improvement. They were also not coordinated in their institutional evaluation efforts. The implication here is that the universities cannot be said to be using any model in their evaluation efforts, not to talk of providing feedback to the system regularly as would be if the suggested model developed by the researchers is adopted. Furthermore, the reports of the little attempts at conducting internal system evaluation were found to end up mostly in the archives/records, and were usually not revealed to the personnel. Of note therefore are the exceptions of three prominent institutions that took the trouble to practice proper quality assurance by having a special unit to be in charge, making physical visits for inspection and calling erring staff to order. This practice is however not popular with others, thus it was difficult to note the impact of internal evaluation practices in some other Universities, and as suggested by most Lecturers and Students, there were no noticeable internal system evaluation. All these run contrary to the dictates of the FAMOUS model by Ohia (2006) which encourages evaluation at all stages of educational activities as well as the ploughing back of the results/reports for system improvement.

- The administration is supposed to audit the system frequently to ascertain the satisfaction of students and staff about the adequacy and effectiveness of service provision. It was found that the institutions that dedicated a unit (like the Quality Assurance Unit) to conduct internal evaluation practices fared better than those who left it to the whims and caprices of individual Departments, and were subsequently not necessarily held accountable to the authorities by reporting appropriately. The responses, when the administrators were asked how often internal evaluation was conducted in their Universities revealed an interesting result. This was noted because there were those who picked 'once in five years', which suggests that they may be the type of institutions that relied only on NUC's seasonal accreditation assessment and do not vigorously conduct internal system evaluation in between. The fact that responses show once in 5 years suggest that many do not practice the proper internal system evaluation that is supposed to be regular and conducted for all as suggested by Alade et al (2010) in their advocacy for Whole School Evaluation practices.

A tenuous link was found between Universities that practiced internal system evaluation and those with high student output. The few universities that were found to practice internal system evaluation and who had good overall environment (including Quality Assurance Units) were found to have a higher student output. This is what is being suggested by the researcher, that when the various segments of the University system is regularly evaluated and the results/reports are fed back to correct errors that have been observed at the various segments, then better quality outputs will be produced. In this instance, the students that will be produced in such universities will be of satisfactory quality with more of them finishing with better grades and very few of them with lower level first degrees. However, even though system evaluation was found to contribute to student output, the extent could not be readily ascertained.

The first null hypothesis tested, and rejected, examined the mean of individual scores of some responses within the three groups of respondents on their perception about internal evaluation practices in their own Universities and this showed a significant difference among them; with lecturers having the highest mean score, which generally indicates that they are nearer the expected responses. While they were all not expected to agree that internal system evaluation was being conducted, the responses showed a difference in their perspective of what is going on in the institutions. The fact that the hypothesis was rejected showed that the Student, Lecturers and Administrators did not have the same perception of the

internal evaluation processes in their institutions. This is predicated on the fact that the universities did not have specific evaluation models they were using; hence their evaluation efforts lacked coordination, specific purpose and focus. This situation would not be the case if the universities all adopted ´The Internal Evaluation Model´ developed by the researchers which would focus on either specific or the entire stratum of the system, and also ensure that the reports of the evaluation exercises are promptly fed back into the system to correct whatever lapses were found and bring about system improvement.

The second hypothesis compared the students' graduating class among the Universities to see if there is a difference in the trend. Finally a summary of the universities' graduating classes were compared and presented graphically.

Conclusion and Recommendations

The study assessed the practice of internal system evaluation in the Universities in South West Nigeria and its attendant implications. Elements that influence the system output were examined and findings revealed that internal system's evaluation was not very common in most of the institutions, and they lacked uniformity in the practice across universities. Based on the findings, the followings were recommended:

- The practice of getting students to evaluate their lecturers should be encouraged and emphasized
- Internal evaluation should be made mandatory in all institutions (to ensure the system is working well)
- Ploughing back the result of such evaluations should be focused on in order to improve services as well as achievement of system objectives.
- The internal system evaluation model developed by the researchers should be adopted by the universities to ensure that the system benefits maximally from internal evaluation efforts they make.

Contributions to knowledge:

- The study developed a model for internal system evaluation which will ensure that the University system benefits practice of Whole School Evaluation in the university system.
- The study revealed that most of the Universities were not rooted in the practice of involving students in evaluating their lecturers' teaching effectiveness.
- Feedback to the system is very important in every evaluation effort made to ensure system improvement.

- The study revealed that most of the universities did not have evaluation models that guide their internal evaluation practices; hence their efforts were not coordinated.

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