British Journal of Education, Society & Behavioural Science
4(12): 1762-1774, 2014
ISSN: 2278–0998

SCIENCEDOMAIN *international*
www.sciencedomain.org

Curriculum Design for Accounting Education in Nigeria

Oyewo Babajide[1*], Faboyede Samuel[1] and Ben-caleb Egbide[1]

[1]Department of Accounting, School of Business, Covenant University, Ogun State, Nigeria.

Authors' contributions

This work was carried out in collaboration between all authors. Author OB designed the study, performed the statistical analysis, wrote the protocol, and wrote the first draft of the manuscript. Authors FS and BE managed the analyses of the study. All authors read and approved the final manuscript.

Article Information

DOI: 10.9734/BJESBS/2014/11923
Editor(s):
(1) Chan Shen, Department of Biostatistics, University of Texas, USA.
(2) James P. Concannon, Department of Education, Westminster College, Fulton, Missouri, USA.
Reviewers:
(1) Rossana Guerra De Sousa, Federal University of Paraíba/Federal University of Rio Grande do Norte, Brazil.
(2) Anonymous, Inovation and Research Unit, Malaysia.
Peer review History: http://www.sciencedomain.org/review-history.php?iid=614&id=21&aid=5922

Original Research Article

Received 10th June 2014
Accepted 10th July 2014
Published 28th August 2014

ABSTRACT

Aims: It is typical of universities to regularly overhaul the curriculum of accounting degree programmes both at the undergraduate and postgraduate levels of study. Professional accountancy bodies also review their syllabus over time. In addition, it is common practice by professional accounting institutes, to grant exemptions to holders of accounting degrees, in writing professional exams. As such, it becomes intellectually stimulating to examine, on one hand, the cause(s) of regular curriculum review for both academic and professional accounting programmes, and on the other hand, the interconnectedness between the two. This research therefore provides answers to address these curiosities
Study Design: The study obtained data through a survey research carried out in Nigeria,

**Corresponding author: Email: meetjidemichael@ymail.com;*

using questionnaire as the research instrument.
Place and Duration of Study: The study was conducted in Nigeria in the year 2013. Samples were selected from six-subgroups to represent two major groups; Accounting Lecturers in Nigerian universities, postgraduate, and undergraduate accounting students represented the academic accounting education group; while accountants in industry, tutors, and students of professional accountancy exams represented the professional accounting education group.
Methodology: Data were collected using questionnaire as the research instrument. Techniques in statistics such as mean, standard deviation, correlation, regression, T-test and ANOVA were used to explore the relationships among variables at 5% significance level.
Results: Empirical findings were that the factors influencing curriculum design for academic and professional accounting education do not significantly differ.
Conclusion: For accounting as a discipline to maintain relevance, it has to keep evolving with the changing environment.

Keywords: Accounting education; benchmarking; curriculum design; expectation gap; Nigeria; syllabus.

1. INTRODUCTION

It is typical of universities to regularly overhaul the curriculum of accounting degree programmes both at the undergraduate and postgraduate levels of study. Professional accountancy bodies also review their syllabus over time. In addition, it is common practice by professional accounting institutes, to grant exemptions to holders of accounting degrees, in writing professional exams.

[1,2,3] recognized the place of accounting institutions – academic and professional – as being responsible for preparing students to be the workforce in the globalised world and the need for them to review the necessary aspect of their curriculum, update their teaching materials and impart knowledge and skills to students. Studies by [4,5,6] have equally reiterated the roles tertiary institutions and professional bodies play in equipping accountants for the roles they perform in the society.

With these thoughts in mind, it becomes intellectually stimulating to examine, on one hand, the cause(s) of regular curriculum review for both academic and professional accounting programmes, and on the other hand, the interconnectedness between the two, to serve as a litmus test for assessing the justification for exemption practices by professional accounting institutions, and grating of admission by tertiary institutions to holders of professional qualifications. This research therefore provides answers to address these curiosities. The research specifically addresses these questions:

(i) What are the factors responsible for curriculum design and review of accounting undergraduate and postgraduate programmes in Nigerian Universities?
(ii) What are the factors that influence the regular review and change of syllabus by professional accounting bodies in Nigeria?
(iii) Is there any connection between academic accounting education (AAE) and professional accounting education (PAE) to justify the practice of mutual recognition of qualifications, through the granting of direct entry admission into universities for

holders of professional qualifications, and the granting of exemptions to holders of accounting degrees undertaking professional accounting exams?

Three research hypotheses, formulated for the study, are stated in their alternative forms thus:

H_1^1: There is a significant relationship between accounting education curriculum design and the factors affecting the design of accounting education curriculum in Nigeria.
H_1^2: There is a significant difference in opinion among accountants in industry, tutors of professional exams, professional exam students, university accounting lecturers, postgraduate accounting students, and undergraduate accounting students in Nigeria as to the skills required by accountants.
H_1^3: There is significant difference in the factors affecting the design of academic and professional accounting education in Nigeria.

2. RELATED LITERATURE

Designing the curriculum of a programme is the determination of the courses, modules and training to be taken and successfully completed before receiving certification to attest to the fitness of person(s) so designated. Certification is an indication of possessing requisite skills, training and competence to practice a profession or vocation. The courses to be taken may be varied from time to time. The changing nature of human beings and society reinforces the necessity for regular curriculum review [1].

Studies by [7,8] have documented the universality of accounting as a discipline that is relevant to all business dealings because it provides essential information for business and economic decisions. The nature of work performed by the accountant always changes and there is need to adapt to the universal development. To maintain relevance, it is therefore not uncommon to overhaul accounting syllabus. Several concepts have been advocated to guide the development and review of all types of curricula at both the program and course based level including: alignment and coherence of all parts of the curriculum; scope and extent of coverage; sequence of learning; continuity, which is the vertical repetition of major curriculum elements in different courses over time; and Integration, which refers to the horizontal relationship among major curriculum components at any given point in time [9].

The specific factors that affect the design of accounting curriculum are the following; globalisation, global best practices; innovation; skills required of accountants to play their roles effectively; changes in the business environment; and the ordering of learning experiences so that learners build on previous experiences and move to broader, deeper or more complex understandings and applications [2,7,8].

Skills required refers to the ability of accounting students and graduates to be global and innovative in thoughts and outlook; be curious and creative with risk taking; be able to develop interactive communication with emphasis on social and personal skills; work collaboratively; acquire basic scientific, Information and Communication Technology (ICT) skills. Nigeria's tertiary institutions, particularly the universities, have a responsibility to instil these skills in its students [3]. The professional accountancy bodies in Nigeria have a responsibility, as well, of organizing trainings, workshops and seminars to disseminate knowledge and skills to accounting students, tutors and practitioners.

The need to develop intellectual, physical and social abilities and competencies, as equipment for the individual to live in and contribute to the development of the society, was emphasised by [1], and this has brought about the introduction of university-wide courses which cuts across all programmes (accounting inclusive) especially at the undergraduate level. This explains why candidates pursuing a degree in accounting will undertake compulsory general courses like use of English, citizenship education, history and philosophy of science, philosophy and logic, computer science, etc., and borrowed courses from other departments at the first and second year of study, before concentrating on the core accounting courses at the higher levels usually the third and fourth year. Holders of professional qualifications admitted through direct entry also partake in such university-wide courses before graduating. [9] noted that globalization is posing new challenges to the accounting profession and changing the roles expected of accountants to play, hence the need to review accounting education curriculum in order to meet this expectation. [10] supported this view by emphasising the need to train and develop accountants of emerging economies to maintain relevance in the face of international convergence which is necessary for economic globalization.

Academic and Professional Accountancy training institutions in Nigeria tend to give mutual recognition to each other. The Institute of Chartered Accountants of Nigeria (ICAN) regularly accredits undergraduate accounting programmes of universities and polytechnics institutions from time to time; this also serves as a means of ensuring quality because, besides the National Universities Commission (NUC), statutory professional bodies are also empowered by Federal Law in Nigeria to, carry out professional accreditation evaluation of the academic programmes of tertiary educational institutions in Nigeria [11]. Earning a degree from an accredited institution entitles the holder exemptions from writing some courses in the ICAN professional exams. Some Nigerian Universities also recognise ICAN professional qualification by granting direct entry admission to certain levels to their holders, depending on the stage of completion. For example, an associate accounting technician (holders the ICAN ATSWA) could gain a direct entry admission to year two of a 4-year course while an associate of the institute (ACA) could gain direct admission into the year three of a 4-year course.

3. RESEARCH METHODS

3.1 Population and Sample of Study

A survey research approach was adopted to sample the opinion of accounting tutors and students at the academic and professional levels. Accounting education was segregated into the academic accounting education (AAE) and professional accounting education (PAE). In the context of this research, the operational definition of AAE is the accounting curriculum in Nigerian Universities. PAE is the curriculum of professional accounting exam syllabus. The study groups were broadly categorized into the academic accounting education group and the professional accounting education group. The academic accounting education group population comprises of accounting lecturers in Nigerian universities, postgraduate accounting student and final year undergraduate accounting students in Nigerian universities. The final year students were chosen because it was anticipated that they would have taken all of the accounting courses available in the department or if not, they would have had the opportunity to have been knowledgeable about all undergraduate accounting courses.

The professional accounting education group population comprises of professionally-qualified accountants in the industry, lecturers in accounting tuition centres and students writing accounting professional exam. Samples for accounting tutors and students writing professional exams were drawn from the major ICAN tuition centres designated as registered training centres (RTC).

3.2 Research Instrument and Variables Operationalization

Questionnaire was used as the primary data-gathering research instrument. Two types were designed (one for AAE and the other for PAE) and copies were administered to respondents.

The various factors influencing curriculum design for accounting education were identified, grouped and enlisted in the research instrument under four major themes: skills required of an accountant ;best practices in accounting, societal factors, and regulatory requirements (applicable to academic accounting education only).

Skills required is broken into; analytical, numerate, information technology (IT), problem-solving, managerial, communication, research, and inter-personal skills.

Best practices in accounting comprises of; the need to instil ethical behaviour in accountants, benchmarking of accounting syllabus with other universities, embracing of global best practices in accounting, required practical and hands-on experience in accounting, and the need to close general lapses observed in the accounting profession.

Societal factors is sub-divided into; roles played by the accounting function in organizations, changing accounting needs of the society, the need to align with changes in the business environment and society and the need to meet the expectation gap of the society as touching roles performed by accountants.

Regulatory requirements comprises of; regulatory requirement by the National Universities commission (NUC), and graduation requirements by the university.

Curriculum design for academic accounting education was measured by identifying major courses taken by accounting students in Nigerian universities at the undergraduate and postgraduate levels. The 19 courses which emerged were; Accounting Information Technology/Management Information system; Auditing; Business Administration & Management; Business statistics; Cost/Management Accounting; Economics; Entrepreneurial Development studies; Environmental accounting; Ethics in Accounting; Financial accounting & Accounting theory; Financial Management; Forensic Accounting; Industrial training and experience; Operations research; Public sector Accounting and Finance; Research methodology; Research Thesis/Dissertation; Taxation, and University-wide courses.

The curriculum design for professional accounting education was measured using all the courses that apply to the AAE curriculum but filtering away courses peculiar to universities such as the university-wide courses and research thesis, resulting to 17 items, which are also the major courses that have featured in professional accounting syllabus overtime.

Two sets of questionnaire were designed: one for the AAE, containing the 19 major courses undertaken in Universities, and the other for the PAE, featuring 17 major professional courses. The factors affecting the AAE enlisted regulatory requirements in the research

instrument administered to the AAE group but this item was excluded in the research instrument administered to the PAE group because university regulatory requirements do not apply to professional programmes.

Respondents were requested to indicate on a 5-point scale ('5' being the highest and '1' being the lowest on the score continuum) the degree of relevance of the courses to the training of accountants. Respondents were also requested to indicate the extent to which the factors affect accounting curriculum design. Table 1 displays the distribution of the research instrument among respondents.

Table 1. Research instrument administration

	Academic education group			Professional education group		
	University Accounting Lecturers	**Postgraduate accounting students**	**Undergraduate accounting students**	**Accountants in industry**	**Professional exam tutors**	**Professional exam students**
Distribution (Total=335)	40	50	70	70	40	65
Collection (Total=246)	29	38	51	54	26	48

3.3 Model Specification

Two regression models, one formulated for each of AAE and PAE, are stated below:

$$CUD_{AAE} = f\{SKILLS, BPRAC, SOCFAC, REG\} \quad (1)$$

$$CUD_{PAE} = f\{SKILLS, BPRAC, SOCFAC\} \quad (2)$$

Restating equations (1) and (2) in their linear forms yield:

$$CUD_{AAE} = \beta_{0+}\beta_1 SKILLS + \beta_2 BPRAC + \beta_3 SOCFAC + \beta_4 REG + e \quad (3)$$

$$CUD_{PAE} = \mu_0 + \mu_1 SKILLS + \mu_2 BPRAC + \mu_3 SOCFAC + e \quad (4)$$

Where:

CUD_{AAE} is curriculum design for academic accounting education
CUD_{PAE} is curriculum design for professional accounting education
SKILLS is *Skills required of an accountant*
BPRAC is *Best practices in Accounting*
SOCFAC is *Societal factors*
REG is *Regulatory requirements*
$\beta_0, \beta_1, \beta_2, \beta_3, \beta_4, \mu_0, \mu_2, \mu_3$ are the co-efficients
e is error term

3.4 Statistical Analytical Tools

Descriptive and inferential statistics were used to explore study variables. Descriptive statistics used were the mean and standard deviation. Pearson correlation and regression analyses were used to measure the strength of relationship between curriculum design and the factors affecting it. The distribution pattern was examined for normality using the Jarque-

Bera test [12]. Given that the Jarque-Bera test result shows that data were normally distributed at 5% significance level, parametric inferential statistics such as independent T-test and Analysis of Variance (ANOVA) were used to examine the differences in mean of opinions between the AAE and PAE groups. Measures such as VIF were used to diagnose collinearity. Two Statistical packages were used for analysis— SPSS and *gretl*softwares.

4. RESULTS AND DISCUSSION

This section presents the results of the different statistical procedures performed, the analysis of the results, as well as a discussion of the inference deduced from the research findings.

Table 2 presents the descriptive statistics of the curriculum design for academic and professional accounting education. For AAE, Three courses— Accounting Information Technology, Auditing and Taxation — all have the same highest mean score of 4.75. This is followed closely by Cost & Management Accounting, and Financial reporting & Accounting theory with a mean of 4.67. The third highest ranking course is Financial Management (mean of 4.58), followed by Public sector Accounting and Finance (mean of 4.50), then by Ethics in Accounting (mean of 4.33). Business Administration & Management, Forensic Accounting, Research methodology, and Research Thesis each have a mean score of 4.17. All the courses identified have a mean score of over 4.0 (an equivalent of 80% on a 5- point scale) and this suggests they are crucial to the designing of the curriculum for AAE. The traditionally core accounting courses such as Accounting Information Technology, Auditing, Cost & Management Accounting, Financial reporting, Financial Management, Public sector Accounting & Finance, and Taxation all have mean scores greater than or equal to 4.50 (same as 90%). This explains their relevance as the major fields of study in accounting.

Table 2. Descriptive statistics of accounting education curriculum design

Courses	Academic education		Professional education	
	Mean	Std. deviation	Mean	Std. deviation
Accounting Information Technology	4.75	.452	5.00	.000
Auditing	4.75	.452	4.90	.316
Business Admin. & Management	4.17	.389	3.90	.316
Business statistics	3.50	.798	3.70	.483
Cost/Management Accounting	4.67	.492	4.80	.422
Economics	3.42	.669	3.40	.516
Entrepreneurial Development studies	3.92	.900	3.80	.789
Environmental accounting	3.83	.835	4.00	.816
Ethics in Accounting	4.33	.651	4.50	.527
Financial reporting/Accounting theory	4.67	.492	4.70	.483
Financial Management	4.58	.515	4.70	.483
Forensic Accounting	4.17	.835	4.60	.699
Industrial training and experience	4.33	.778	3.80	.789
Operations research	3.67	.778	3.60	.516
Public sector Accounting and Finance	4.50	.522	4.30	.675
Research methodology	4.17	.718	3.50	.707
Research Thesis/Dissertation/Project	4.17	.718	__	__
Taxation	4.75	.452	5.00	.000
University-wide courses	2.92	.900	__	__

Other courses such as Entrepreneurial Development studies (mean of 3.92), Environmental accounting (mean of 3.83), and Operations research (mean of 3.67) are considered an augmentation to the core accounting courses as accounting interrelates with other disciplines, and the knowledge to be acquired in these fields enhances the relevance and versatility of accountants. In other words, they instil the training needed by accountants to combine their job functions with other functions. For example, an accountant could function as a researcher to solve an accounting-related problem. Also, accountants can combine their job function with administration or business management. This explains why undergraduate accounting students takes borrowed courses in related fields like management, finance and social sciences.

University-wide courses have the lowest mean score of 2.92 suggesting that they are considered not too relevant but are taken perhaps because they are made mandatory as they do not contribute to the training of accountants as such. In other words, the university-wide courses would not have been taken but for regulatory requirements by the Nigerian Universities Commission, and the university requirement for graduation. Most universities require that the general studies courses are taken and passed before a student can graduate especially at the undergraduate level.

The descriptive statistics of the professional accounting education curriculum is also featured in the Table 2. While Accounting Information Technology and Taxation both have individual highest mean score of 5, Auditing has mean score of 4.90, Cost & Management Accounting has a score of 4.80; Financial reporting & Accounting theory and Financial Management individually have mean score of 4.70, Forensic Accounting is on a mean score of 4.60, Ethics in Accounting has mean score of 4.50, Public sector Accounting and Finance has mean score of 4.30. For the professional accounting education, all areas of accounting regarded as core have individual mean score of over 4.0, representing 80% on the 5-point scale. The results in AAE curriculum reinforce the outcome of the PAE in establishing their authenticity and acceptability as the broad areas of specialization in accounting. This also explains why they feature prominently in the curricula of the two leading professional accountancy bodies in Nigeria --- The Institute of Chartered Accountants of Nigeria (ICAN), and the Association of National Accountants of Nigeria (ANAN) despite regular syllabus revision over time.

Table 3 presents the descriptive statistics of the factors influencing the curriculum design for AAE and PAE. The maximum mean score amongst the AAE factor is 4.83 while the minimum is 4.25. With an average minimum score of over 4.0 (equivalent of 80% on a 5-point calibration scale), it is considered that each of all the factors, broadly categorized into four—SKILL, BPRAC, SOCFAC and REG, is relevant for designing the AAE. Also for the PAE curriculum, the maximum mean score is 5.0 and the minimum is 4.0. On the strength of these results, we adjudge that all the factors identified affect the designing of PAE curriculum. On the whole, required skills, best practices and societal factors all affect curriculum design for both AAE and PAE. Regulatory requirement is only applicable to AAE.

Table 3. Descriptive statistics of factors affecting accounting education curriculum design

Factors	Academic		Professional	
	Mean	Std. deviation	Mean	Std. deviation
Skills required of accountants				
Analytical skills	4.67	.492	5.00	.000
Numerate skills	4.50	.522	4.80	.422
Information technology (IT) skills	4.83	.389	4.70	.483
Problem-solving skills	4.83	.389	4.70	.483
Managerial skills	4.58	.515	4.20	.422
Communication skills	4.75	.452	4.50	.527
Research skills	4.42	.793	4.00	.667
Inter-personal skills	4.50	.522	4.30	.483
Best practices				
Need to instil ethical behaviour	4.75	.452	4.80	.422
Benchmarking of syllabus	4.25	1.138	4.70	.483
Global best practices in accounting	4.67	.492	4.80	.422
Required practical hands-on experience	4.25	.452	4.30	.483
Need to close lapses in the profession	4.83	.389	4.60	.516
Societal factors				
Roles played in organizations	4.75	.452	4.60	.516
Changing accounting needs of the society	4.58	.515	4.60	.516
Alignment with environmental changes	4.33	.492	4.40	.516
Need to meet societal expectation gap	4.58	.515	4.30	.483
Regulations				
Regulatory requirement by the NUC	4.83	.389	n/a	n/a
Graduation requirements by the university	4.58	.515	n/a	n/a

Table 4 displays results of correlation analyses for AAE and PAE curriculum design. It shows that there is a strong positive relationship between accounting education and factors influencing its curriculum design, which is significant for AAE at 1%, with a correlation co-efficient of 84%; and for PAE at 5% significance level, with a correlation coefficient of 72.3%. Results in the table reinforces the correctness of results in Table 2 that skills, societal factors, roles played, and regulations affects curriculum design. Regression results are presented in Tables 5 and 6 for regression models of AAE and PAE.

Table 4. Correlation between accounting education and factors influencing curriculum design

Hypothesis	Statistics	Correlation between AAE and factors influencing its design	Correlation between PAE and factors influencing its design
H_1^1: There is a significant relationship between accounting education curriculum design and the factors affecting the design of accounting education curriculum in Nigeria.	Pearson Correlation	.842***	.723**
	Sig. (2-tailed)	.001	.045
Decision: Accept alternative Hypothesis			

****. Correlation is significant at the 0.01 level (2-tailed), **. Correlation is significant at the 0.05 level (2-tailed)*

Table 5. OLS Regression result for model 1 (academic accounting education)

	Coefficient	Std. Error	t-ratio	P-value	sig
const	1.13058	13.8491	0.0816	0.937	
SKILL	1.24912	0.382629	3.2646	0.014	**
BPRAC	-0.995655	0.633271	-1.5722	0.160	
SOCFAC	2.20699	0.962002	2.2942	0.056	*
REG	1.50495	1.01407	1.4841	0.181	

***significant at 5% *significant at 10%*

Mean dependent var	79.25000	S.D. dependent var	6.311966
Sum squared resid	34.68387	S.E. of regression	2.225947
R-squared	0.920858	Adjusted R-squared	0.875634
F(4, 7)	31.32159	P-value(F)	0.000147
Log-likelihood	-23.39547	Akaike criterion	56.79094
Schwarz criterion	59.21548	ANOVA p-value	0.000

The model has an ANOVA p-value of 0.000, meaning the model is significant at 1%.The regressor coefficients in the AAE model for skills (β_1=1.24912) and societal factors(β_3 =2.20699) are both positive and significant at 5% and 10% respectively. Best practices in accounting has a negative coefficient (β_2=-0.995655), but is not significant (p-value of 0.160). Regulatory requirement has a positive coefficient (β_4=1.50495) but it is also not significant (p-value of 0.181). The overall interpretation is that the skills required of an accountant and societal factors are two important variables affecting curriculum overhaul of academic accounting education; though, best practices and regulatory requirements have some roles to play in curriculum review, they are not as significant as such. While universities may not see the need to overhaul accounting curriculum on the ground of benchmarking syllabuses or complying with regulatory requirements, the need to instil the skills required of an accountant, and societal expectations from accountants are strong considerations that too important to be ignored in deciding on curriculum redesign.

R-squared coefficient of 0.92 indicates that 92% of the change in the syllabus design of accounting education in universities is attributable to the combination of skills, best practices in accounting, societal factors and regulatory requirements.

Table 6. OLS regression result for model 2 (Professional accounting education)

	Coefficient	Std. Error	t-ratio	P-value	sig
const	160.631	10.8899	14.7504	<0.000	***
SKILL	-4.8186	0.344868	-13.9723	<0.000	***
BPRAC	0.680479	0.128788	5.2837	0.002	***
SOCFAC	3.92265	0.269867	14.5355	<0.000	***

****significant at 1%*

Mean dependent var	72.20000	S.D. dependent var	3.489667
Sum squared resid	6.631676	S.E. of regression	1.051323
R-squared	0.939492	Adjusted R-squared	0.909238
F(3, 6)	87.82830	P-value(F)	0.000024
Log-likelihood	-12.13575	Akaike criterion	32.27150
Schwarz criterion	33.48184	ANOVA p-value	0.000

The PAE model has an ANOVA p-value of 0.000, meaning the model is significant at 1%. All the regressor coefficients for the PAE model are significant at 1%. The regressor coefficients of best practice (μ_2=0.680479) and societal factors (μ_3= 3.92265) are positive while that of skills (μ_1= -4.8186) is negative. The need to comply with global best practice and meet the demands made by the society on accountants is expected to necessitate regular curriculum review. However, the more the required skills an accountant has instilled, the less the need for a curriculum review. Stated differently, curriculum redesign should be less frequent, given that an accountant has instilled the skills required.

R-squared coefficient of 0.94 indicates that 94% of the change in the syllabus design of professional accounting education is attributable to the combination of skills, best practices in accounting, and societal factors respectively.

The VIF correlation coefficient of the AAE regressors are: SKILL (2.156), BPRAC (1.067), SOCFAC (5.773) and REG (1.497). The VIF coefficient of the PAE regressors are: SKILL (5.629), BPRAC (1.067), and SOCFAC (5.773). Given that the minimum possible value of a VIF correlation coefficient between the dependent and each of the independent variables is 1.0, and with values > 10.0, indicating a collinearity problem, (Jarque and Bera), we conclude that there is no collinearity problem in models 1 and 2 respectively because each of all the regressors have coefficients < 10.0.

Hypothesis 2 examines if there are differences in opinion among professionally-qualified accountants working in the industry, tutors of professional accounting exams, candidates of professional exams, accounting lecturers in Nigerian universities, post-graduate accounting students, and undergraduate accounting students as to the skills required by accountants to enhance professional competence. With the *P-value* (0.919) greater than 0.05 in Table 7, we uphold the null hypothesis that there is no significant difference in the opinion of AAE and PAE groups as to the skills needed by accountants. To excel as an academic or professional accountant, these skills are requisite.

Table 7. ANOVA table for difference in opinion as to skills required by accountants

Hypothesis	P-value	Decision
H_1^2: There is a significant difference in opinion among accountants in industry, tutors of professional exams, professional exam students, university accounting lecturers, postgraduate accounting students, and undergraduate accounting students in Nigeria as to the skills required by accountants.	.919	Reject alternative hypothesis

The acceptance of the null hypothesis reinforces our earlier deduction that the desire to instil the required skills in accountants influences the design of AAE and PAE curricula. For instance, the need to instil information technology skills has paved way for incorporating courses like accounting information technology.

Tables 8 and 9 capture inferential statistical analysis to test hypothesis 3.

Table 8 provides comparative analysis on a case-by-case basis for each of the factors affecting curriculum design. It shows that there is no statistically significant difference between the opinion of the AAE group and the PAE group for the factors. The difference in means for the two groups for the three parameters—Skills, Best Practice, and Societal

factors is not significant; this is proven by the *P-value* greater than 0.05 for each of the factors.

Table 8. Group statistics for difference in factors

Factor	Group Statistics			
	(p value)	Type of accounting education	Mean	Std. deviation
Skills	0.073	Professional Accounting Education	36.20	1.549
		Academic Accounting Education	37.08	2.353
Best practice in Accounting	0.707	Professional Accounting Education	23.20	1.932
		Academic Accounting Education	22.75	1.658
Societal factors	0.980	Professional Accounting Education	17.90	1.524
		Academic Accounting Education	18.25	1.603

Table 9. Independent sample T-test result of factors affecting accounting education curriculum

Hypothesis	Levene's test for equality of variances		Decision
	F	P-value	
H_1^3: There is significant difference in the factors affecting the design of academic and professional accounting education in Nigeria	1.784	.197	Reject alternative hypothesis

Table 9 contains inferential statistical test which shows that the overall difference in mean is not statistically significant. With *P* value of .197 greater than 0.05, we accept the null hypothesis that there is no significant difference in the factor influencing curriculum design for AAE and PAE. Except for university-required courses, the curricula of AAE and PAE are interrelated. The result in Table 3 which present analysis of the factors responsible for curriculum design also corroborates this result. This also explains why the core aspect of accounting such as Accounting Information Technology, Auditing and Taxation, Cost & Management Accounting, Financial reporting & Accounting theory, Financial Management, and Public sector Accounting and Finance feature prominently in the curricula of AAE and PAE. The interrelatedness of the AAE and PAE is evidenced by the mutual recognition universities and professional institutions accord each other through direct entry admission, and granting exemptions in writing professional exams.

5. CONCLUSION

The research has attempted to investigate and report the factors influencing the design of accounting education. To achieve in depth analysis, curriculum design was examined separately for university and professional education. It was observed that the factors influencing the design of curriculum for academic and professional accounting programmes in Nigeria do not significantly differ. Accounting is a dynamic discipline that changes with societal needs; to maintain relevance; it has to keep evolving with the changing environment

COMPETING INTERESTS

Authors have declared that no competing interest exists.

REFERENCES

1. Oyeleke O, Akinyeye C. Curriculum development in Nigeria; Historical perspectives. Journal of Educational and Social Research. 2013;3(1):73-80.
2. Ezeani N. The place of globalization on accounting education in Nigerian tertiary institutions. Singapore Journal of Business Economics and Management studies. 2012;1(4):46-55.
3. Olagbemiro T. Re-engineering Nigeria's tertiary education for the century work force. Nigerian Compass; 2009.
4. Dunn P. The role of culture and accounting education in resolving ethical business dilemma by Chinese and Canadians. Accounting and Public Interest. 2006;6:116-134.
5. Johnson SR. Education and training of accountants in Sub-Saharan Anglophone Africa. Technical Paper. Washington, D.C.; World Bank. 1996;305. Available:http://wwwwds.worldbank.org/servlet/WDSContentServer/IW3P/IB/1996/01/01/000009265_3961214155148/Rendered/PDF/multi_page.pdf
6. Radebaugh LH. Environmental factors influencing the development of accounting objectives, standards and practices in Peru. The International Journal of Accounting Education and Research. 1993;11(3):45-67.
7. Ishaq AM. The challenges of teaching financial accounting in Nigerian secondary schools: A case study of Gombe State. Being a Paper Presented at the 23rd Annual International Conference of Association of Business Educators of Nigeria, held at University of Lagos, Faculty of Education Auditorium, on 11th-15th; 2011.
8. Obazee JO. The proposed financial reporting council act issues and challenges for the chartered accountant. Being a paper presented at the 2 Eastern Zonal Accountants Conference of ICAN held at Owerri from August 22-24; 2007.
9. Ezeani NS. Repositioning the accounting profession through professional ethics. International Journal of the Common Wealth Research and Capacity Education Initiative (IJCWRCEI). 2012;3(3):70-88.
10. Fowokan T. IFRS adoption in Nigeria: Tax implications. A paper presented at CITN seminar on IFRS Adoption in Nigeria. 2011;4-10.
11. Idumange J, Major B. Private universities in Nigeria: Implications for quality control. A Paper Presented At the 30th Annual Conference Of The Nigerian Association For Educational Administration & Planning (NEAP). Held On Monday October 2nd –Friday Oct. 6th at The Faculty of Education Hall Enugu State University of Science & Technology, Enugu; 2006. Available:http://www.thenigerianvoice.com/news/101455/1/private-universities-in-nigeria-implications-for-q.html
12. Jarques C, Bera Anil K. A test for normality of observations and regression residuals. International Statistical Review. 1987;55(2):163–172.

Peer-review history:
The peer review history for this paper can be accessed here:
http://www.sciencedomain.org/review-history.php?iid=614&id=21&aid=5922