# Formal Education and Forensic Accounting Development in Nigeria

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Abstract: This study examined formal education and forensic accounting development in Nigeria with a cross-sectional survey design as its research strategy. Questionnaire was used as the research instrument for data collection. Pearson product moment correlation (PPMC) and multiple regression were employed as analytical techniques. PPMC showed that significant relationship exists between formal educations, methods (traditional, classical and modern) of integrating forensic accounting into accounting curriculum and forensic accounting development in Nigeria with 0.625, 0.618, 0.639 and 0.521(P-value<0.05) respectively. Also, there is a significant effect of formal education and methods (traditional, classical and modern) of integrating forensic accounting into accounting curriculum of 43.6%, 8.1%, 49.5% and 14.7% (p-value<0.05) respectively on forensic accounting development in Nigeria. Formal education is vital to the development of forensic accounting practices in Nigeria. Academicians and practitioners should regularly update their knowledge on forensic accounting in terms of research and developmental courses so as to ensure continual development of forensic accounting practices in the country. Classical methods should be used by academic institutions in the introduction of forensic accounting into academic curriculums as it indicated the highest impact on forensic accounting development among the three methods of integrating a course into the curriculum.

Keywords: Formal education; forensic accounting; forensic accounting integrating methods; fraud

JEL Classification: M40; M41; M42

## 1. Introduction

The loss of confidence in the true and fair view of financial reports by users arose as a result of the corporate failure that ravaged the corporate world in the twenty-first century which put to test the significance of qualitative physiognomies of financial reports, accounting standards, accountability, and auditing. This failure in the

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corporate world is not an alien to any country, ranges from country to country, continent to continent, developing to developing countries. Madan (2013) gave an inexhaustible list which is Harris Scarfe and One. Tel (Australia), Global Crossing (Bermuda), Nortel Networks (Canada), Zhengzhou Baiwen, Shandong Bohai, Jinzhou Port, Kelon (China), Vivendi Universal (France), ComRoad, Phenomedia, MLP, Hugo Boss, Nici, Zapf Creation (Germany), Dynamic Life, Ipirotiki Software (Greece), Parmalat, Freedomland, Finmatica (Italy), Elan (Ireland), JVG Group of companies, UTI, Global Trust Bank, Citibank, Wipro, Satyam (India), IHI, Sanyo Electric (Japan), Baan Company, Ahold NV, LCI Computer, Landis (Netherlands), Gescartera, Bafisa, Afinsa and Forum Filatelico (Spain), ABB, Skandia, Prosolvia (Sweden), Adecco International (Switzerland), Barings Bank Equitable Life, Wiggins, Versailles (UK), and Adelphia Communication, IBM, Enron, Xerox, Madoff Securities, Lehman Brothers (U.S.).

In Nigeria, the rate of fraudulent activities both in the public and private sector is perturbing and incited. Ogbi (2013) observed that corruption happens to have enveloped all sectors of the Nigerian society, ministries, and agencies of government. The Nigerian society is filled with stories of wrong practices such as stories of ghost workers on the payroll of ministries, extra-ministerial departments and setting ablaze of offices burning sensitive documents and corruption in the public sector (Okwoli (2004) while earning manipulation and other unethical financial and non-financial issues in the private sector. In response to these corporate reporting crises and failure evolved forensic accounting which is a tripartite practice of utilizing accounting, auditing and investigative skills to assist in legal matters (Modugu & Anyaduba, 2013).

Forensic accounting is an accounting field that has drawn a significant attention of regulators, academicians and accounting practitioners especially in the developed world in which many universities have integrated forensic accounting courses into their accounting curriculum in order to meet up industry demand for forensic accountants (Ozkul & Pamukcu, 2012). The increase in calls for forensic accounting education by accounting professionals and educators started after the much celebrated financial reporting scandals that rocked the earlier part of this century (Carozza, 2002; Melancon, 2002). This increase in demand of forensic accountants reinforces the argument that the educational institutions play a major role in constructing, interpreting and reinforcing societal values through knowledge dissemination and transfer that takes place within them (Rezaee & Burton, 1997).

The societal urge for forensic accounting is a response to corporate societal ills which could be confronted via increasing education on the causes and potential remedies. Nonetheless, there has not been an adequate emphasis, especially survey evidence on how forensic accounting development and education can help curb financial crimes beyond the several anecdotal views that abound. In support of this

proposition, Efiong (2012) disclosed that there is a very low level of awareness on forensic accounting among undergraduate students in Nigeria and contend that adoption of forensic accounting into the universities accounting curriculum has a huge potential to enhance students skills and competencies and could be used as a veritable resources from which fraud could be mitigated. Bonita (2003) argued that the dearth of forensic accounting education in the accounting curriculum of universities and colleges are as a result of; misunderstanding the extent of fraud problem by educators and lack of room in the accounting curriculum

Majority of extant literature on forensic accounting either concentrated on the impact of forensic accounting in organizations, theoretical analysis of forensic accountants' roles or conceptual review of forensic accounting techniques, with a little focus on the implication of education on forensic accounting development. This study is distinct from extant literature as it focused on the effect of formal education and methods of integrating forensic accounting into the accounting curriculum on forensic accounting development in Nigeria.

#### 2. Literature Review

#### 2.1.1. Conceptual Review

Forensic accounting is an indispensable practice in fraud detection and control. Okoye and Gbegi (2013) stated that it is an investigative style of accounting used to determine whether an individual or organization has engaged in any illegal financial activities. They also observed that it is a rapidly growing field of accounting that describes the engagement that results from actual or anticipated dispute or litigations. Forensic means suitable for use in a court of law. Coewen (2005) stated that forensic accounting involves the application of accounting concepts and techniques. It demands reportable where the accountability report is considered as evidence in the proceedings (Joshi, 2003). It provides an accounting analysis that is suitable to the court which will form the basis of discussion, debate and ultimately dispute resolution (Zysman, 2004). Forensic accounting is the tripartite practice of utilizing accounting, auditing, and investigative skills to assist in legal matters. It is a specialized field of accounting that describes engagements that result from actual or anticipated disputes or litigation. Forensic accounting can, therefore, be seen as an aspect of accounting that is suitable for legal review and offering the highest level of assurance (Apostolou, Hassell & Webber, 2000).

Degboro and Olofinsola (2007) noted that forensic investigation is about the determination and establishment of fact in support of the legal case. That is, to use forensic techniques to detect and investigate a crime is to expose all its attending features and identify the culprits. In the view of Howard and Sheetz (2006), forensic accounting is the process of interpreting, summarizing and presenting complex

financial issues clearly, succinctly and factually often in a court of law as an expert. It is concerned with the use of accounting discipline to help determine issues of facts in business litigation (Okunbor & Obaretin, 2010). Forensic accounting is a discipline that has its own models and methodologies of investigative procedures that search for assurance, attestation and advisory perspective to produce legal evidence. It is concerned with the evidentiary nature of accounting data, and as a practical field concerned with accounting fraud and forensic auditing; compliance, due diligence and risk assessment; detection of financial misrepresentation and financial statement fraud (Skousen & Wright, 2008); tax evasion; bankruptcy and valuation studies; violation of accounting regulation (Dhar & Sarkar, 2010).

Formal education corresponds to a systematic, organized education model, structured and administered according to a given set of laws and norms, presenting a rather rigid curriculum as regards objectives, content, and methodology (Melnic & Botez, 2014). It is a systemized form of education guided by a curriculum. In relation to forensic accounting, there is no uniformity in the methods to be adopted in integrating forensic accounting into academic institutions' curriculum, Rezaee, Crumbley and Elmore (2004) identified two integrating methods which are accounting and auditing method in which forensic accounting is taught as a subject in accounting and auditing and the direct method in which forensic accounting is recognized as a course in higher academic institutions. Smith and Crumbley (2009) suggested three methods which are auditing approach whereby fraud instruction are presented within the accounting curriculum; fraud examination approach and forensics approach using a broader view of forensic accounting techniques. In respect to this, Johnson-Rokosu (2015) summed it up to; traditional auditing approach which incorporates forensic accounting via accounting/ auditing courses, that is offered as a stand-alone forensic accounting course, classical fraud examination approach which incorporate forensic accounting by placing much emphasis on fraud, that is offer forensic accounting modules into a second auditing course and modern forensics approach which incorporates forensic accounting as a direct courses, that is a distinct FFA courses at either the undergraduate or graduate level. The Johnson-Rokosu (2015) approach will be adopted as operative in Nigeria.

Forensic accounting education is of advantage to both the society and students. The society benefits from forensic accounting as the conventional auditors rarely discover fraud and owing to the contemporary period's high rate of employee and management fraud, embezzlement and other financial crimes, apt forensic accounting training and skills is needed by accounting and auditing professionals so as to recognize those crimes (Bonita, Micheal & Georgiy, 2016; Houck, Kranacher, Morris, Riley, Robertson, & Wells, 2006). Students who acquire forensic accounting training and skills have enhanced hiring potentials, as the demand for forensic accountants remains strong today and continues to grow (Cohn, 2014; Tysiac, 2012; Mounce & Frazier, 2002), increase take-home pay than their contemporaries who

studied traditional accounting, wider employment opportunities in both the public and private sectors such as internal revenue service, law enforcement agencies, internal audit, intelligence agencies, consultancy (Bonita et al., 2016).

# 2.2. Empirical Reviews

There is no gainsaying that there is little empirical evidence on education and forensic accounting in both developed and developing economies. Existing literature such as Rezaee and Wang (2018) indicated that Big Data/data analytics and forensic accounting should be integrated into the business curriculum and some attributes and techniques of Big Data are essential to the improvement of forensic accounting education and practice. Bonita, et al., (2016) disclosed that educators and practitioners agreed that forensic accounting should be offered as a separate course or degree at both the graduate and undergraduate levels, and that the contents should cover more of experimental learning component than the traditional accounting. Seda and Peterson-Kramer (2014) disclosed that 97 out of 422 universities and colleges offering forensic accounting courses in the USA provides forensic accounting programmes. Rezaee, Crumbley and Elmore (2004) disclosed expected increase in the demand for and interest in forensic accounting, forensic accounting education as being relevant and beneficial to accounting students and that some significant differences exist regarding topical coverage of forensic accounting between academicians and practitioners. Abdullah and Sutan (2014) found that curriculum and faculty are the major obstacles of the accounting department in universities across Bahrain. Ananto (2015) concluded that forensic accounting is an important subject to be included into accounting curriculum at the undergraduate level in the universities in Indonesia. Lee, Cefaratti, and Rose-Green (2015) found out that those students of forensic accounting course exhibited higher levels of creativity than students' non-forensic accounting courses, and there is an increase in the creative ability of students after participating in a forensic accounting course in Midwestern State University, Texas. Johnson-Rokosu (2015) revealed that respondents indicated interest in the integration of fraud and forensic accounting into existing accounting curriculum in Nigeria tertiary institution and that its inclusion will increase student expertise, skepticism and fraud judgment.

Other existing studies also focused on the impact of forensic accounting on organization such as, Madan (2013) revealed that as part of the governance committee, forensic accountants can make significant contributions in the area of corporate governance, fraud prevention, and investigation, creating a positive work environment, establishing effective lines of communication and vigilant oversight. In Nigeria, Efiong (2012) Using mixed research methods, content analysis and quantitative method of data analysis, found that there is a very low level of awareness on forensic accounting among undergraduate students and contend that adoption of forensic accounting into the universities accounting curriculum has a huge potential

to enhance students skills and competencies and could be used as a veritable resources from which fraud could be mitigated. Enofe, Okpako and Atube (2013) using ordinary least square (OLS) regression and Chi-square indicated that the application of forensic accounting services on firms affects the level of fraudulent activities. Akenbor (2014) indicated that forensic auditing techniques (proactive and reactive) have a negative significant relationship with fraudulent practices in Nigerian public institutions. Aduwo (2016) concluded that forensic accountants' activities are important for the fight against corruption in Nigeria. Nwosu (2015) disclosed that effectiveness of forensic auditing impact fraud control, financial reporting, and internal control quality. Alao (2016) study indicated that a forensic audit has a significant effect on financial fraud control in Nigerian deposit money banks. This is in agreement with the findings of Oladejo and Yinus (2015) that forensic accounting is significant on performance, fraud control and reduction in the Nigerian banking industry.

#### 3. Research Method

#### 3.1. Research Design and Data Source

The research work embraced the use of cross-sectional survey design as its research strategy. Data were collected from primary sources using a five-point Likert scale structured questionnaire administered on 200 level, 300 level, and 400 level accounting department undergraduates of ten public and private universities in southwest Nigeria. The basis for using undergraduates in the second, third and fourth year was as a result of their availability to participate in the study unlike 100 level students, who are new to the university environment, busy with their registration and adapting to the changes educational style.

### 3.2. Model Specification

The model stated below was based on the functional relationship between forensic accounting development, formal education and methods of integrating forensic accounting to curriculum

Forensic Accounting Development-FAD= f (formal education, methods of integrating forensic accounting to curriculum)

FODEV=  $\beta + a_1$  FEDU +  $a_2$  TRADM +  $a_3$  CLASM+  $a_4$  MODM + $\mu$ 

Whereby; FODEV represents forensic accounting development, FEDU represents formal education, TRADM, CLASM and MODM represents traditional, classical and modern methods of integrating forensic accounting to the curriculum.  $\beta$  represents the constant, while  $a_1$ ,  $a_2$ ,  $a_3$ ,  $a_4$  represents the shift parameters and  $\mu$  represents the error term

A priori Expectation: It is expected that formal education and methods of integrating forensic accounting to curriculum should have a positive significant impact on forensic accounting development in Nigeria.

# 3.3. Estimating Technique

Data collected from the Questionnaire was analysed using multiple regression and Pearson product moment correlation.

# 4. Empirical Results and Discussion of Findings

Table 1. Relationship between Education and Forensic Accounting Development

Correlations

Correlations											
		FODEV	EDU	TRADM	CLASM	MODM					
	FODEV	1.000	.625	.618	.639	.521					
	FEDU	.625	1.000	.549	.330	.423					
Pearson Correlation	TRADM	.618	.549	1.000	.682	.474					
	CLASM	.639	.330	.682	1.000	.515					
	MODM	.521	.423	.474	.515	1.000					
	FODEV		.000	.000	.000	.000					
	FEDU	.000		.000	.000	.000					
Sig. (1-tailed)	TRADM	.000	.000		.000	.000					
	CLASM	.000	.000	.000		.000					
	MODM	.000	.000	.000	.000	ē					
	FODEV	1050	1050	1050	1050	1050					
	FEDU	1050	1050	1050	1050	1050					
N	TRADM	1050	1050	1050	1050	1050					
	CLASM	1050	1050	1050	1050	1050					
	MODM	1050	1050	1050	1050	1050					

Source: Authors' computation, 2018

The results as presented in table 1 revealed that there is 0.625 (p=0.000) a significant correlation between formal education-EDU and forensic accounting development-FODEV in Nigeria which implies that the growth of forensic accounting practices in the country is aided by the quality of the formal education. The methods of integrating forensic accounting into the curriculum of the Nigerian education system are significantly related to the rate of development in forensic accounting in the country by  $0.618,\,0.639$  and 0.521(P-value<0.05) respectively.

Table 2. Regression Analysis on Education and Forensic Accounting Development

							Coef	fficie	ntsa								
				andardized efficients		Standardized Coefficients			T	Sig.		Collinearity Statistics					
В				Std. Error		Beta							Tolerance		VIF		
	(Constant)		-3.	.057		.476	76				-6.420	.000					
	FEDU			436		.025		.409		1	7.102		000		.650		1.538
1	TRADM			.081		.035	5		.069		2.292		022		.416		2.401
	CLASM			495		.034	ļ		.401	1	4.353		000		.477		2.096
	MODN	1		147		.032			.108		4.561		000		.660		1.515
						I	Model	Sum	mar	y							
Model	R	R	. A	djuste	usted Std. E		Error	r		Change Statistics							
		Squar		Square		of the		R Square		•	F		f1	df2	Sig	Sig. F Change	
						Estin			ange		Change						
1	.782ª	.6	511	.6	509	2.1	12583		.6	11 409.96		5	4	1045		.000	
							AN	NOV	<b>A</b> a								
Model			Sum of		Df M		ean Square		F		Sig.						
Squ					uares												
Regressi			ion	74	7410.800		4			1852.700		409.965				.000b	
1 Residual		1	47	4722.534		1045			4.51		519						
Total				121	2133.333		1049										
a. Depe	endent V	√aria	ble: FC	DEV	7												
b. Pred	ictors: (	Cons	stant), I	MOD	M, F	EDU,	CLAS	SM, T	RAL	M							

Source: Authors' computation, 2018

In the table 2, it could be inferred that if the explanatory variables (FEDU, TRADM, CLASM, MODM) are held constant, the development of forensic accounting in Nigeria will be negatively affected by -3.057unit, which implies that in a situation where there is no formal education and integration of forensic accounting into curriculum, forensic accounting practices will be adversely affected. This signifies the importance of formal education and proper integration of forensic accounting to the eradication of fraud through the development of forensic accounting, which is in tandem with Crumbley and Elmore (2004), Ananto (2015) & Johnson-Rokosu (2015) on the importance of forensic accounting education and curriculum of forensic accounting on the performance of forensic accounting practices.

The effect of Formal education-FEDU on forensic accounting practice in Nigeria is 0.436 (S.E = 0.25, t= 17.02 and p<0.05). This depicts that an increase in the spread of formal education of forensic accounting will results to 43.5% significant effect on forensic accounting practice in the country, which is in tandem with Crumbley and Elmore (2004) that disclosed that the expected growth in the demand for and interest in forensic accounting is as a result of forensic accounting education. The result also revealed that the method of integrating forensic accounting education into the curriculum significantly affect the practice of forensic accounting in Nigeria with 0.081, 0.495 and 0.147 (p-value<0.05) for traditional-TRADM, classical-CLASM

and modern- MODM methods respectively, which agrees with the findings of Ananto (2015) that concluded that forensic accounting is an important subject to be included into accounting curriculum at undergraduate level; Lee, *et al.* (2015) that found out that those students of forensic accounting course exhibited higher levels of creativity than students non-forensic accounting courses, and there is increase in creative ability of students after participating in a forensic accounting course and Johnson-Rokosu (2015) that the interest in the integration of fraud and forensic accounting into existing accounting curriculum in Nigeria tertiary institution and that its inclusion increase student expertise, skeptism and fraud judgement.

The diagnostic test, which is variance inflation factor (VIF) that ensures reliability and validity of the above results showed that all the explanatory variables have a VIF less than 10, which suggests they are not highly correlated with each other and thus indicates the absence of multicollinearity in model. In addition, the model summary shows that there is 78.2% relationship existed between education, methods of integrating forensic accounting and forensic accounting development in Nigeria. The adjusted R² shows that the FEDU, TRADM, CLASM and MODM explain 0.609 variations in the development of forensic accounting practices in Nigeria. The F-Stat signifies the fitness of the specified model as its p-value < 0.05.

# 5. Concluding Remarks

#### 5.1. Conclusion and Recommendation

Formal education is vital to the development of forensic accounting practices in Nigeria. Methods of integrating forensic accounting into the curriculum are critical to the development of the forensic accounting profession in the country. Due to the significant impact of formal education on forensic accounting development, academicians and practitioners should regularly update their knowledge on forensic accounting in terms of research and developmental courses so as to ensure continual development of forensic accounting practices in the country, as what academicians taught influence the knowledge of forensic accounting students. Classical fraud examination method which places much emphasis on frauds should be used by academic institutions in the introduction of forensic accounting into academic curriculums as it indicated the highest impact on forensic accounting development among the three methods of integrating a course into the curriculum.

# 5.2. Contribution to Knowledge

This study has contributed to the existing body of knowledge on the development of forensic accounting in Nigeria. Notably, the study established among other things that formal education and methods of integrating forensic accounting into the curriculum of universities in Nigeria significantly influences forensic accounting

development in Nigeria. This is study however suggest that further investigation on forensic accounting development should cover other geographical areas of Nigeria.

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