

# Integrating Forensic Accounting Core Competency into the Study of Accounting. Case of Nigeria Tertiary Institutions

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**Abstract** *Fraud and forensic accounting education is a necessity in very corrupt corporate and government institutions across the globe. Accounting educators have been pressured to make changes to the accounting curriculum and to include courses in forensic accounting and fraud examination by professional organizations and legislators as fraud cases have mounted and academic were criticized for not preparing their students for this professional environment. Accounting graduate trained under the existing curriculum exhibit lesser knowledge, skills and abilities in fraud detection, prevention and deterrence. This study therefore examined the philosophical beliefs, behavioural science concepts and approaches that can be adopted in integrating a fraud/ forensic accounting (FFA) into existing accounting curriculum. The study adopted mixed research methods, content analysis and quantitative method of data analysis was employed. This paper basically made use of the content analysis in analyzing the content of the existing accounting curriculum in Nigeria universities. This study involved selected universities in South West region of Nigeria using survey research method. Findings in this study revealed that most respondents would prefer integrating fraud/forensic accounting education into accounting curriculum by offering a separate fraud/forensic accounting courses. Also, the study revealed that fraud/ forensic accounting education has positive impact on student expertise, skepticism and fraud judgment. The study identified the following consideration that Accounting course developers need to consider before, during and after curriculum revision. Involvement of faculty; consider stakeholders opinion; accreditation agencies' and governmental requirements; resources available; need for change; among others.*

**Key words** Accounting curriculum, forensic accounting, fraud education, forensic accounting education, behavioural science concepts, tertiary institution

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## 1. Introduction

Fraud and forensic accounting education is a necessity in very corrupt corporate and government institutions across the globe. Fraud and forensic accounting (FFA) education has its root in developed nations such as United States of America (USA), Canada, United Kingdom, France and Australia with most established universities in those nations having incorporated fraud/ forensic accounting into their existing

accounting curriculum at either undergraduate or graduate level. Accounting graduate trained under the existing curriculum in developing countries exhibit little knowledge, skills and abilities in fraud detection, prevention and deterrence compare to graduate in developed nations. Until recent events, accounting education and profession regard detection of fraud as secondary issue before the debacle of recent audit failures that brought Enron, WorldCom, Arthur Andersen to their knees and the debacle forever change the practice and education of accounting world over. Also, high profile alleged financial statement fraud cases (e.g., Enron, Global Crossing, WorldCom, Adelphia, Cendant, Sunbeam, Lucent, Waste Management, Rite Aid, and MicroStrategy) have raised serious concerns about the integrity and reliability of the financial reporting process (Rezaee, 2002). These events in accounting world led to the promulgation of two legal documents - (Statement on auditing Standards - SAS 99, *Consideration of Fraud in a Financial Statement Audit* and Sarbanes-Oxley, 2002).

Auditors now have an expand responsibility for fraud detection by requiring auditors to be aware of firm environments, pressures upon employees, and control weaknesses that could contribute to the probability of fraud occurring (Durtschi and Fullerton, 2005). There is urgency therefore for auditors to enhance their skills in the act of fraud detection, prevention and control.

In a study, PCAOB 2004, Elliot, 2002 cited in Carpenter, Durtschi and Gaynor, 2008, detecting fraud has become a high priority in the accounting profession (p.1) and the failure of statutory audit to detect, prevent and reduce misappropriation of corporate fund give rise to the profile and need of forensic accounting in Nigeria. Yearly, tertiary institutions in Nigeria produce competent accountants/ auditors with skill in typical auditing courses that are not suitable for auditors with the skills and characteristics needed for today's electronic work environment. In the recent banking sector reform in Nigeria, most of the financial misappropriation and fraud are uncovered with the services of foreign forensic accounting experts. This is due partly to shortage of skill forensic accountants in the country. While professional body such as Institute of Chartered Accountants of Nigeria (ICAN) acknowledged lack of professional exposure in forensic accounting by establishing faculty to train Chartered Accountants as Certified Forensic Accountants (CFA), tertiary institutions in Nigeria are yet to integrate forensic accounting into their curriculum.

Studies have suggested that the increase in the adoption of forensic accounting courses as part of the accounting curriculum in a growing number of universities in developed countries is indicative of the demand for sets of competences and skills that are commensurate and sophisticated enough to confront the complexities that businesses faced with respect to growing threats arising from fraud (Efiog, 2012).

### 1.1. Objectives of the Study

This study intends to determine the philosophical beliefs and best approach in integrating fraud and forensic accounting core competency into existing accounting curriculum in Nigeria tertiary institutions. Specifically, the objectives of this research study are as follows:

- i. To know if inclusion of forensic accounting as a course to the existing accounting/ auditing course will increase student expertise
- ii. To evaluate the prospect and challenges of infusing fraud and forensic accounting core competency into existing accounting curriculum with or without administrative /faculty support.
- iii. To explore best approach in integrating fraud and forensic accounting into accounting curriculum in Nigeria tertiary institutions.

### 1.2. Research hypotheses

Three research hypotheses, formulated for this study, are stated in their null forms thus:

H<sub>0</sub><sup>1</sup>: Infusing Fraud and forensic accounting core competency will have no significant effect on student expertise and performance in fraud related judgment.

H<sub>0</sub><sup>2</sup>: Fraud and forensic accounting cannot be integrated into exiting accounting curriculum in tertiary institutions in Nigeria.

H<sub>0</sub><sup>3</sup>: Lack of administrative support will have no significant effect in developing and integrating fraud/forensic accounting into existing accounting curriculum.

### 1.3. Nature and scope of the study

This study is empirical in nature and it critically identified the prospects and challenges that Nigeria tertiary institutions will derive or face when integrating fraud and forensic accounting into their exiting curriculum. In addition, the paper was restricted to fraud and forensic accounting education as it relates to it benefits, challenges, demand, course content, and importance. Owing to vastness of tertiary institutions in Nigeria and in order to do an in-depth examination of the subject matter, the study is limited to the tertiary institutions in South West region. The choice of these tertiary institutions arises based on their nature of tertiary institutions, the level of education exposure and accounting student population of the selected tertiary institutions.

## 2. Literature Review

Research in fraud and forensic accounting education in the developing countries are still very scarce. This paper extend the body of existing literature and highlight the findings in few relevant studies by examining possible approach and behavioural

science concepts that tertiary institutions in developing countries can adopt in educating accounting graduate in fraud and forensic accounting.

### 2.1. Approaches in integrating Fraud/Forensic accounting into the study of accounting

In integrating and developing a fraud/forensic accounting curriculum programs, there is no scientific answer identifying the best pragmatic approach to use but there are philosophical beliefs about a best approach (Smith and Crumbley, 2009, p.2). For example in a study by Bagley, Blake, and Lunt (1996, p. 100), University of Central Lancashire philosophical beliefs in the area of Accounting education curriculum development encompass four main strands:

- Curriculum Development: To ensure that what is learned is relevant to the future needs of client groups such as employers and students.

- Employer Involvement: In the design, delivery and management of the curriculum and in the assessment of students.

- Student Involvement: To ensure that students are interested and increasingly take responsibility for their learning.

- Staff Development: To assist tutors and support staff in coping with the considerable changes in philosophy and practices necessitated by all of the above.

Developing a relevant fraud/ forensic accounting curriculum therefore required the involvement of various stakeholders in accounting education. Employer as represented by organized labour, student such as student union, alumni and staff – both faculty members and administrative staff. Accounting course developer need to take into consideration among other pedagogy, the opinion of leading professional accounting and related bodies such as American Institute of Certified Public Accountants (AICPA), Institute of Chartered Accountants of England and Wales (ICAEW), Association of Certified Chartered Accountants (ACCA), Institute of Chartered Accountants of Nigeria (ICAN), Association of Certified fraud Examiners (ACFE), Institute of Internal Auditors (IIA) in whatever approach is adopted in integrating FFA.

The study of Rezaee, Crumbley and Elmore, (2004) suggested two approaches to accounting curriculum revision: (1) accounting and auditing approach – this integrate forensic accounting through accounting and auditing courses and offer a stand-alone forensic accounting course and (2) direct forensic accounting approach – this offer a distinct forensic accounting course at either the undergraduate or graduate level. In a related studies, Smith and Crumbley (2009); Fletcher, Higgins, Mooney, and Buckhoff, (2008), noted three pedagogical approaches that course developers often use in conjunction with the above four strands in developing fraud/ forensic accounting curriculum which include the following: (a) auditing approach, which presented fraud instruction within accounting curriculum in the past; (b) fraud

examination approach and (c) Forensics approach using a broader view of forensic accounting techniques. From prior studies (Bagley, *et al*, 1996; Albrecht & Sack, 2000; Rezaee, *et al*, 2004; Smith & Crumbley, 2009; Fletcher, *et al*, 2008), tertiary institutions course developers can integrate fraud and forensic accounting education into the existing accounting curriculum by adopting any of the following pragmatic approaches, (1) traditional auditing approach, (2) classical fraud examination approach, and (3) Modern forensics approach. Table 1 gives an overview of each approaches, associated philosophy and impediments in integrating fraud and forensic accounting into the existing accounting curriculum. Each of the approaches is discussed below.

Table 1. Approaches in integrating fraud and forensic accounting [FFA] into the existing accounting curriculum

<b>TRADITIONAL AUDITING</b>	<b>CLASSICAL FRAUD</b>	<b>MODERN FORENSICS</b>
<p><b>PHILOSOPHY:</b>                      -Incorporate FFA via accounting/ auditing courses                      -offer a stand-alone forensic accounting course.</p> <p><b>APPROACH:</b>                      Course developers may introduce completely new fraud examination or forensic accounting courses into the existing accounting curriculum.</p> <p><b>IMPEDIMENTS:</b>                      -Adding FFA to accounting curriculum can overburden faculty &amp; students.                      -None willingness of faculty to add FFA topics because of lack of expertise                      -Some courses may be drop to accommodate FFA topics.</p>	<p><b>PHILOSOPHY:</b>                      -Incorporate FFA by placing much emphasis on fraud                      -offer FFA modules into a second auditing course.</p> <p><b>APPROACH:</b>                      Course developers may adopt the WVU model and Association of Fraud Examiners (ACFE) curriculum.</p> <p><b>IMPEDIMENTS:</b>                      -much concentration is based on fraud detection, deterrence and prevention</p>	<p><b>PHILOSOPHY:</b>                      -Incorporate FFA as a direct course                      -offer a distinct FFA course at either the undergraduate or graduate level.</p> <p><b>APPROACH:</b>                      Course developers may adopt a broader approach with intersecting discipline areas and skill sets. The discipline basis includes Criminology, Accounting, Investigative Auditing, Litigation service, Accounting/ Computer Forensics, etc.</p> <p><b>IMPEDIMENTS:</b>                      -Lack of financial resources,                      instructional materials                      -Lack of administrative support                      -lack of interest from faculty</p>

### 2.1.1. Traditional Auditing Approach (TAA)

The traditional auditing approach tends to incorporate fraud/forensic accounting topics into existing accounting/auditing courses and offer a stand-alone forensic accounting course. According to Smith and Crumbley, (2009, p.3) auditing in this regard is the foundation for fraud/forensic accounting curriculum revisions. The rationale for this approach is that the three fields of forensic accounting (litigation consulting, expert witnessing, and fraud examination) are significantly affecting all aspects of today's business (Rezaee *et al.*, 2004). In the explanation of Rezaee, *et al.*, the process of integrating forensic accounting topics into existing upper level accounting and auditing courses ensure coverage of all critical aspects of forensic accounting, without having to add a new course into already saturated accounting curricula.

In traditional auditing approach, auditing students are introduced to the procedures for testing internal company controls (Smith and Crumbley, 2009), investigation and reporting of financial activities to ensure accuracy and correctness of activities being reported on. Auditing topic cover include the study of fraud, detail checking procedures followed in conducting an audit, frauds from cheques kitting, net worth analysis, asset misappropriations and financial statement misrepresentation (Smith and Crumbley, 2009) and imparting knowledge of red flags of fraud (Carpenter, Durtschi and Gaynor, 2008). In a way, Smith and Crumbley, (2009, p.7) asserts that these topics cover in auditing are similar to those included in fraud examination courses, but with numerous other audit topics to cover, such fraud topics cannot be as fully developed within an auditing course.

Fraud is both firm and situation specific and requires a higher level of skepticism to detect fraud. As suggested by Smith and Crumbley (2009), teaching approaches toward the study of fraud/ forensic accounting using the traditional auditing as a foundation, require the student to adopt a more suspect mindset toward his/her studies than is used in an audit course. It is unreasonable to expect any audit course to prepare students for every situation they might encounter, thus a course that enables students to confront a variety of situations with a skeptical eye may prove valuable (Carpenter *et al.*, 2008). Thus, as argued further by Carpenter *et al.*, the combination of the knowledge of red flags of fraud with a raised level of skepticism will help auditors to build a cognitive fraud model that will improve their ability to detect fraud (p.7).

Auditing according to Smith and Crumbley (2009), is regarded as a field of study that is strongly based on providing assurances that account balances are "statistically" accurate, internal controls are satisfactory, and accounting rules are followed. Fraud/forensic accounting extend to studies beyond these traditional auditing topics (AICPA 2004). Therefore, as argued by Smith and Crumbley, adding a host of new fraud and forensic topics to auditing instruction is not considered a

viable alternative. Adopting an approach that add FFA into an existing curriculum has major impediments as noted by Rezaee *et al.* (2004) and the impediments are First, adding forensic accounting to existing accounting and auditing courses can overburden faculty and students alike in dealing with courses already saturated with related materials. Second, accounting faculty may not wish to add forensic accounting topics to their courses primarily because of their own lack of comfort with forensic accounting topics. Lastly, instructors may have to drop some of the existing accounting and auditing subjects in order to add forensic accounting topics.

In adopting TAA, auditing serve as a foundational course for fraud/forensic accounting curriculum revisions and course developers may introduce completely new fraud examination or forensic accounting courses into the accounting curriculum. Nevertheless, about 50 percent of responded academicians preferred integration of forensic accounting education through existing accounting and auditing courses in a study by Rezaee *et al.* (2004).

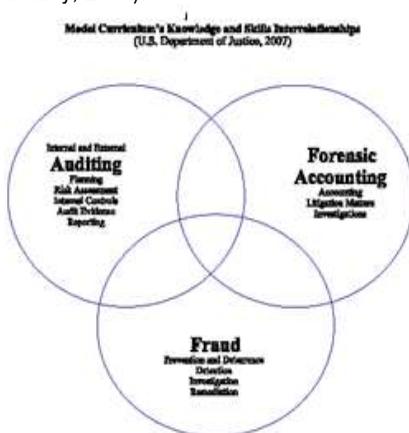
#### 2.1.2. Classical Fraud Examination Approach (CFEA)

The philosophy of classical fraud examination approach is to integrate fraud and forensic accounting modules into a second auditing course by placing much emphasis on fraud detection, prevention and deterrence. This assumed that auditors are not trained to detect and prevent fraud, at best auditors are fact witness in a fraud related cases. Classical fraud examination approach involve rigorous data detection and analysis with a built-in suspicion and skepticism that fraud and violations of applicable laws, rules, and regulations are always possible (Rezaee and Riley, 2010). This applies to business, accounting, and legal principles, rules, and investigative techniques to financial and legal issues under investigation.

Fraud examination courses cover topics that strengthen the reporting process by (1) assisting in the deterrence, detection, and reporting of financial statement and occupational fraud, including investment fraud, kickbacks and commercial bribery, fraudulent payment schemes, internal control analysis, cash theft, payroll fraud, bank fraud, credit card fraud, electronic fund transfer fraud, and computer fraud and (2) conducting fraud vulnerability assessments and designing antifraud policies, procedures, and controls (Rezaee and Riley, 2010; Smith and Crumbley, 2009). Traditional auditing procedures address fraud to the extent that Statement on auditing Standards (SAS) No. 99, *Consideration of fraud in a Financial Statement Audit*, and other auditing requirements necessitate a search for fraud; however, auditors have no responsibility to plan and perform auditing procedures to detect misstatements that are not judged to be material whether caused by error or fraud (Rezaee and Riley, 2010).

Unlike traditional auditing approach, materiality concept plays a less significant role in fraud examination approach. According to Rezaee and Riley, (2010) citing

Bologna and Lindquist, fraud should be determined when (1) transactions seems “odds” as to when they occur; their frequency, place, or amount; or the parties to which they relate, (2) internal controls are overridden, and (3) chronically low employee motivation and morale occur. In classical fraud examination approach course developers may opt for West Virginia University (WVU) model and Association of Certified Fraud Examiners (ACFE) curriculum as a foundation for fraud/forensic accounting revisions. The WVU model illustrates the student knowledge and skill set requirements (Smith and Crumbley, 2009) as show in figure 1 below. The interrelationship among auditing, fraud examination and forensic accounting is dynamic, changing over time due to political, legal, social, and cultural events (Rezaee and Riley, 2010).



**Source:** Rezaee and Riley, (2010). Financial Statement Fraud – Prevention and Detection, 2<sup>nd</sup> ed. p.307

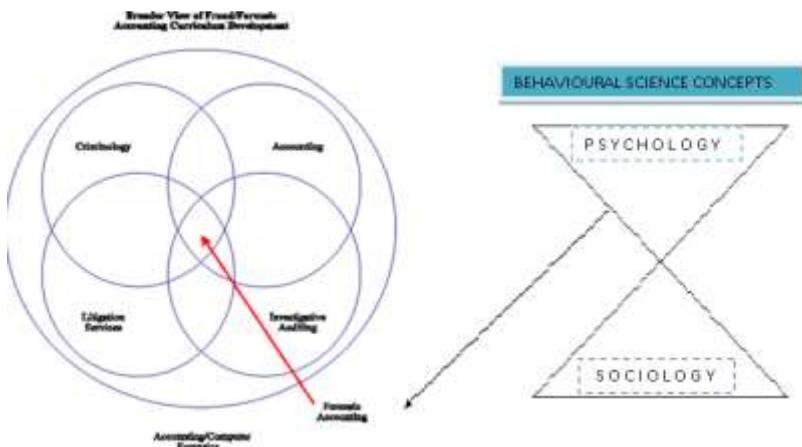
*Figure 1.* The Interrelationship between Auditing, Fraud examination and Forensic Accounting

Equally, fraud examination can be integrated into the existing accounting curriculum by adopting ACFE fraud examination curriculum. It covers the following topics among others, cash larceny, payroll schemes, expense reimbursement schemes, inventory theft, and fraudulent financial statement schemes (Smith and Crumbley, 2009). From Table 1, this approach is noble; however, it has impediments of over concentration on fraud detection, deterrence and prevention. Allegations of fraud are often resolved through court action, which illustrates the overlap between fraud examination and forensic accounting (Rezaee and Riley, 2010). However adopting WVU model for example, encompasses activities unrelated to the other. This

approach only assist in fraud prevention and deterrence efforts that do not directly interface with the legal system, while forensic accountants work with damage claims, valuations and legal and other issues that do not involve allegations of fraud as noted by (Rezaee and Riley, 2010). The section that follows capitalize on the impediments of classical fraud examination approach by broadens its scope and cover wider area in its approach to revise existing accounting curriculum.

### 2.1.3. Modern Forensics Approach (MFA)

Since both traditional auditing and classical fraud examination approaches to curriculum revisions are engrossed with impediments, course developers may opt for a broader approach such as modern forensics. The philosophy of modern forensics approach is to incorporate fraud and forensic accounting as a distinct course at either the undergraduate or graduate level. As noted by Rezaee *et al.* (2004) offering a separate forensic accounting can give more focus to forensic accounting topics, particularly anti-fraud education, and ensure adequate coverage of forensic accounting education. Figure 2 illustrates a broader approach with intersecting discipline areas and skill sets that Course developers may opt for in curriculum revision. The discipline basis includes Criminology, Accounting, Investigative Auditing, Litigation service, Accounting/Computer Forensics etc. (Smith and Crumbley, 2009) and behavioural science concepts - psychology and sociology (Ramamoorti, 2008).



**Source:** Adapted from Smith and Crumbley (2009) study

Figure 2. Intersecting discipline areas and skill sets plus behavioural concepts

Figure 2 as illustrated in the study of Smith and Crumbley (2009), forensic accounting as a broader area of investigation than fraud examination with intersecting discipline areas and skill sets (p.4). Each of the disciplines has its own skill set that intersect to produce the curriculum for forensic accounting. Smith and Crumbley (2009) identified five intersecting skill sets as represented in figure 2 and other skills set outside the circle, that is, the behavioural science components such as psychology and sociology identified by Ramamoorti (2008). The study of *criminology* deals with theories that cause crime to develop, such as conflict theory, natural choice theory, and social control theories. Topics include corporate crime, corporate culture reviews, and interview techniques (Smith and Crumbley 2009).

*Accounting* skill set is the basic accounting and financial understandings and foundational skills students develop as they advance through their undergraduate university accounting courses. These skills include working with electronic data without compromising or destroying the data needed for an investigation. In addition, they deal with an understanding of electronic information risk and locating an electronic footprint used to create bogus electronic or paper records. In this era of e-business, e-payment, e-commerce and other e-series of business transactions, accounting majors need to acquire basic and advanced computer skills. The next skill set is *investigative auditing* - in this representation, fraud examination is considered to be part of investigative auditing along with the traditional investigative auditing areas centered on transaction analysis applied within inventory fraud or cash theft. The *litigation skill* set includes the ability to understand: the discovery process; rules of evidence at the Federal and state levels; the difference between civil and criminal proceedings; differences between being an attorney in the courtroom and an accountant acting as expert witness; valuation services; and preparing electronic data for trial. *Applied Psychology*: forensic accountant need to think like the wrongdoer/fraudster. Forensic accountant need knowledge of psychology in order to understand the thinking and motive behind criminal behavior and to set up prevention programmes that motivate and encourage employees.

However, the modern forensics approach has its impediments. From Rezaee *et al.* (2004) study, many universities are struggling with how to integrate forensic accounting education including anti-fraud education into their courses and curriculum primarily because curriculum changes involve both financial and personal costs as well as administrative commitments and guarantees for success. Major impediments to forensic accounting integration in the accounting curriculum as noted in Rezaee *et al.* study, are lack of financial resources, instructional materials, administrative support and faculty interest. There are too few faculty interested in teaching and developing forensic accounting course materials. If forensic accounting, particularly anti-fraud concepts and techniques, were integrated into

accounting texts, a broader set of universities could incorporate forensic accounting education into their curriculum.

## 2.2. Infusing Behavioural Science Concepts into Fraud/Forensic Accounting Education

The philosophical belief about the best approach of integrating fraud/ forensic accounting (FFA) into the existing accounting curriculum from prior studies involved three pedagogy approaches, namely, traditional auditing approach, fraud examination approach and modern forensics approach. However, as incidence of fraud continues to grow, applying behavioural science concepts help FFA education, that is, fraud detection, prevention and deterrence which is brought about by human factor. The rationale for drawing on behavioural science insights is evident from the intuition that one needs to 'think like a crook to catch a crook' (Ramamoorti, 2008, p.522).

In a study, Smith and Crumbley (2008, p.19) asserts that fraud and forensics accounting courses are not two distinct areas of accounting pedagogy. They argued further that areas beyond financial statement fraud such as digital investigations, criminology, and some aspect of litigation services are considered to be outside the fraud/forensic curriculum. Accounting course developers therefore need to integrate behavioural science components into any of the three identified approaches. In Ramamoorti (2008) opinion, fraud cannot be perpetrated without human factor and it is achieved using the instrument of deception, purposeful intent, intensity of desire, risk of apprehension, violation of trust, rationalization, among other means. There is need to educate accounting majors of 21<sup>st</sup> century era to have adequate understanding of behavioral root causes of fraud, who commit fraud and why, and be proactive in managing fraud risk exposure (p.521). The role of behavioural science such as psychology, sociology, criminology, and anthropology in supporting the practice and interdisciplinary field of fraud examination and forensic accounting education cannot be over-emphasized. These behavioural science concepts are skills outside the circle (see figure 2) that accounting major needs to excel in the field of FFA.

### 2.2.1. Psychology Components

Applied Psychology skill enables a trained accounting major to think like the wrongdoer/fraudster. This skill set impact psychology knowledge in order to understand the thinking and motive behind criminal behavior and to set up prevention programmes that motivate and encourage employees. Therefore, the role of psychology concepts in accounting curriculum cannot be over-emphasized because of human factor to incidence of fraud. The word psychology has had several different meanings from ancient to modern times. Bruno (2002) describes

psychology as '*the science that studies the behavior of organisms*'. From the description above, three words merit special attention in understanding the important of this branch of behavioural science into accounting curriculum. These words are: (1) science, (2) behavior, and (3) organisms. Further explanation by Bruno (2002), considered modern psychology as a *science* because it bases its conclusions on data, that is, information obtained by systematic observations. He suggested that Behavior has three aspects: (1) cognitive processes, (2) emotional states, and (3) actions. Cognitive processes refer to what an individual thinks. Emotional states refer to what an individual feels. Actions refer to what an individual does. The third word, organism is any living creature, which include the study of the behavior of dogs, rats, pigeons and monkeys as a legitimate study of psychology of human behaviour.

In general, to help 21st century accountants to understand human factor in fraud, psychology concepts that seeks to predict, control, understand, and explain individual and group thinking, feeling and behaviour needs to be incorporated into the existing accounting curriculum. As rightly pointed out by Ramamoorti (2008, p.523) accountants needs to understand the following aspects of psychology, namely (1) personality psychology which study individuals; (2) social psychology that looks at group behavior; (3) cross-cultural psychology (anthropology) that analyzes the impact of culture and context on behavior; and (4) abnormal/personality/forensic psychology, sociology, and psychiatry that focus on deviant behavior (including for instance, industrial psychopaths). (5) Criminological psychology studies psychological problems associated with criminal behavior, criminal investigation, and the treatment of criminals.

### 2.2.2. Sociology Components

Applied sociology skills enable accounting major to focus on how society influences human behaviour and vice-versa. The influence of society on human behaviour is the central interest of sociologists. Understanding sociology as systematic study of the groups and societies that explain how people live and how social structures and cultures are created and maintained or changed, and how they affect our behaviour (NOUN, 2008) helps accounting major to appreciate socio-economic environment. In a study, Kleinman and Anandarajan (2011) suggest that in forensic accounting and auditing courses, students should be made aware not only of the accounting/tracing aspects of auditing and forensic accounting, but also of the environment in which fraud takes place and how it is enabled by events in one's surroundings (p.46). Furthermore, the study concluded that accounting education has often been criticized for being too rule-oriented, too bound by the textbook and consequently failing to prepare the students for life in the real world. Kleinman and Anandarajan (2011) believe that explicit attention to the problems of behavior should

serve the students well when they enter the work world. Accordingly, one of the goals of certainly forensic and auditing-related accounting education should be to train future accounting practitioners to avoid succumbing to their own blindness (p.46).

Accounting graduate therefore need to imbibe the mindset of sociologist in order to understand the behaviour and attributes of people in a given social position or situation. To fully understand the importance of sociology in the study of accounting, a research study financed by a Learning Excellence and Development (LEAD) from the Division of Economics and Financial Studies, Macquarie University, Australia gives an insight into sociological concepts that can be integrated into accounting curriculum. In the study, Boyce, Greer, Blair and Davids (2008) highlights how a course (social and critical perspective on accounting) sought to integrate sociological concepts into the study of accounting, with key themes of social construction and social power (p.48). Boyce *et al* posit that sociological concepts have much to offer the study of accounting (and related fields such as audit), by assisting students (and educators) to understand the role of accounting in society as well as economy. Reviewing accounting from sociological perspective provide a means to enhance student understanding of the technical content of accounting gained from prior studies which aim the development of critical skills beyond routinized and instrumental knowledge (p.49).

The influence of accounting extends beyond the sphere of corporate and other business entities – and recent scandals and ethical misdeeds – to the role of accounting in everyday life. This recent scandals questioned the capacity of contemporary accounting education to adequately prepare students for full participation in economy *and* society (Ravenscroft and Williams, 2004; Humphrey, 2005; Owen, 2005; Boyce *et al.*, 2008). Social and Critical Perspectives provide a place where sociological concepts could be employed to critically examine the social role of accounting and a range of related social issues. Sociological concepts as a means through which to examine critically the social role of accounting, by providing crucial tools for understanding phenomena of everyday life and associated social and political relationships (Boyce *et al.*, 2008, p.49). There are largely untapped potential for sociological concepts in the study of accounting and to develop students' generic skills, such as high-level critical thinking, critical analysis and communication skills.

### 2.2.3. Criminology Components

Criminology skill set (see figure 2) is one of the intersecting discipline area that enable accounting major to understand the study of crime and criminal behaviour. Criminology is an interdisciplinary field of study which analysis the aspects of a particular human behaviour (NOUN, 2009). Also, it can be described as the causes

of crime (etiology), crime typology, the meaning of crime in terms of law, rates, or incidence of crime, and community reaction to crime (Ramamoorti, 2008, p.523). Criminology is a branch of sociology, and also draws heavily from law (enforcement) and other social and behavioural science literature (such as law, sociology, psychology, psychiatry, medicine, economics, political science, geography, biology, chemistry, history, public administration and anthropology (NOUN, 2009).

Infusing the study of criminalistics into accounting curriculum will help forensic accountant to understand the role play by law enforcement agent or crime investigator in fraud and crime related matters. As a trained criminologist, the forensic accountant will focus more on 'how' and 'why' crimes are committed rather than 'who' did it, and providing proof of guilt (NOUN, 2009). The study of criminalistics in accounting curriculum build the forensic accountant with mindset of a criminologist to (1) identify the 'how' and 'why' of crimes by individual and the society; (2) understand the three factors of crime: a supply of motivated offenders, the availability of suitable targets, and the absence of capable guardians (control systems or someone "to mind the store"); and (3) teach the methodology of investigating and detecting crime. In a study, Mandery and Kennedy (2011) in the official journal of American Society of Criminologists suggested the following mini-courses to be taught in a criminology class that could help a trainee accountant /criminologist in crime control cum forensic accounting duties as follows:

- *Introductory Criminal Justice* – this offer an overview of policing, the courts, corrections, and juvenile justice.
- *Crime Analysis and Crime Prevention* - provide the underpinning for crime analysis and mapping, as well as for important intervention strategies. Most importantly, it is a mini course focusing on these questions acclimate students to thinking strategically about crime control.
- *Pedagogical Emphasis on Skills and Perspectives Not Facts* - the pedagogical emphasis should be on teaching skills and critical thinking rather than facts. This helps a trained forensic accountant to be an expert witness.

Specific criminology topics/concepts that may be incorporating into an existing business related courses (finance and accounting) are as listed in a discussion paper by Drew and Drew (2012) as follows:

- Key theories and classifications of white collar crime;
- The psychology of financial crime and fraud (human factors, motivation and rationalization);
- The nature of financial crime and fraud (opportunities and techniques);
- Assessing the cost of financial crime and fraud;
- Transactional, procedural elements of finance crime and financial fraud;
- Prevention and detection strategies as applied to financial crime and fraud;
- Regulatory responses and legal remedies.

The paper proposed that criminology and criminal justice content would be best delivered via a foundational, introductory course and then followed by integration across the finance and accounting curriculum. Therefore, students should be exposed to the way in which financial crime and fraud can be perpetrated across the financial statement reports, records and transactions about which they are learning. From the pedagogical perspective and based on criminology training, student would explore the fraud vulnerabilities and apply theory to practice. It is argued that this coordinated approach would place financial crime and fraud firmly on the radar of accounting graduates and encourage them to take a more holistic approach to the identification and mitigation of risk in any establishment they are employed.

#### 2.2.4. Anthropology Components

Anthropology is the study of human beings that focus is not on bodies but how they interact, develop social systems and how culture shapes and affects us (Sherman, 2011). Although accounting focuses on facts and figures, accountants are human beings and they're the product of their culture. Anthropology aids the study of accounting to understand how a particular culture is affected by the society around it. The word "anthropology" comes from Greek roots that translate as "the study of humans". While accountants, financial experts and marketers will sometimes forget that they are dealing with persons and not numbers, anthropologists will, by definition, remember that organizations and structures are ultimately made by and for human beings. Anthropology deals with the shared sets of beliefs and values of a common group of people. While this is usually taken to mean language, taboos and religious beliefs, anthropology can also focus on more businesslike questions like the types of food one eats and the clothes that one wears.

Anthropology assist accounting major in understanding what to expect when dealing with accountants in another culture, for example whether foreign accountants see their primary duty as being a team player who pleases the boss or an independent professional. Awareness of how different cultures regulate accounting is possible through the study of anthropology. In some cultures, accountants have contributed their professional experience to help governments set up the rules, but in others, for example Germany and Japan, accountants have had little input into shaping policy (Sherman, 2011). Fraud, according to Ramamoorti (2008), flourishes in different stripes, shapes, and forms in our society both in developed and developing nations. This is why it is necessary to bring in perspectives from economic/cultural anthropology to understand how white collar crime might manifest itself in other contexts (p.524). Since accounting graduate will work in a global economy and society, a basic understanding of cross-cultural psychology (anthropology) that analyze the impact of culture and context on behaviour (p.523) will go a long way in educating accountants. Fraud examiners / forensic accountants understanding of

cross-cultural environment aid better skill development in unstructured problems solving, deductive analysis, curiosity, sound professional judgement. The behavioural science components highlighted above are some of the interdisciplinary skill sets outside the circle that can be infused into the accounting curriculum using any of the approach.

### **3. Methodology of Research**

The study adopted mixed research methods. This paper basically made use of the content analysis in analyzing the content of the existing accounting curriculum in Nigeria universities. This study involved selected universities in South West region of Nigeria. The target population in this study comprises of stakeholders in accounting education (School administrators, accounting faculty members, students within the selected tertiary institutions) and professional accountants rendering forensic accounting services. A total of 220 copies of questionnaire were administered to respondents in the sample tertiary institutions. However, thirty five (45) copies of the questionnaires were not returned by the respondents representing 20% of the total respondents. Therefore, one hundred and twenty five (175) copies returned were analyzed. The content analysis method was adopted because it is one of the most systematic, objective and quantitative method of data analysis technique employed in other prior research studies involving accounting curriculum revision and integrating fraud and forensic accounting into the study of accounting (Albrecht and Sack, 2000; Rezaee *et al.*, 2004; Smith and Crumbley, 2008). The survey research technique is specifically used in this study because it enables the researcher to obtain relevant data from sample population in the study with the use of close-ended structured type questionnaire. Two sets of questionnaires were administered in gathering data pertaining to the relevance, demand and benefits of fraud and forensic accounting in tertiary institutions in Nigeria. The first set of three-page questionnaire administered randomly to selected accounting faculty member/administrative staff and professionals and a shorter, two-page version of the questionnaire was administered on 400-level accounting students. In addition, chi-square test was used to determine the acceptance or rejection of the hypothesis under test. The researcher expect maximum cooperation from the population, however, some of the population may not have adequate knowledge of fraud and forensic accounting education. There may be instance of not willing to supply relevant information or co-operation from few population members.

### **4. Analysis of Findings**

This section provides analysis of the data gathered from the field. Here, the summarized data from the respondents are presented in tabular form, frequency tables and percentages. Three prepositions were tested and the results using Chi-

square are as discussed. Both Microsoft Excel and SPSS (Statistical Package for the Social Scientists) are employed in the study for analysis.

Table 2. Distribution of Universities in Nigeria offering Accounting/Accountancy in 2014/2015 Academic session

Region	Federal Universities			State Universities			Private Universities		
	Total	Offering	%	Total	Offering	%	Total	Offering	%
	Acct.Courses			Acct.Courses			Acct.Courses		
South West	8	4	50%	10	6	60%	27	23	85%
South South	6	5	83%	5	5	100%	8	6	75%
South East	5	3	60%	5	4	80%	12	9	75%
North West	10	9	90%	4	3	75%	4	3	75%
North Central	6	3	50%	4	4	100%	5	4	80%
North East	6	5	83%	4	3	75%	4	3	75%
Total	41	29	71%	32	25	78%	60	48	80%

Content Analysis of National Universities Commission website and various universities websites

Source: NUC Official website @ <http://nuc.edu.ng/>

Content analysis of National Universities Commission and various Universities websites revealed that there are 133 accredited universities in Nigeria and 102 offered degree courses in accounting (see Table 2). Also, National Board for Technical Education (NABTEB) <http://www.nbte.gov.ng/> listed 95 Polytechnics in Nigeria (that is 25 Federal polytechnics, 40 States owned polytechnics and 30 privately owned polytechnics. Most of the polytechnics lack websites; hence content analysis could not be carried out on the polytechnics however data are obtained from polytechnics in the sample population of this study. It can be inferred from the analysis that average of 77% of the total universities in Nigeria offered degree courses in accounting; hence there is enhanced capacity to integrate fraud/forensic accounting into existing accounting curriculum.

Findings in this study revealed that most respondents would prefer integrating fraud/forensic accounting education into accounting curriculum by offering a separate fraud/forensic accounting courses as attested by the majority (48%) of the respondents (Table 3). Although, majority of the total respondents prefer offering a separate fraud/forensic accounting courses, the opinion of academicians in the study differ. About 45% of this category (academicians) of the respondents prefers integrating fraud/forensic accounting topics into existing accounting/auditing courses. This collaborate the findings of Rezaee *et al.* (2004) that about 50 percent of responded academicians preferred integration of forensic accounting education through existing accounting and auditing courses. However, this approach has a few

major impediments as noted in the study of Rezaee *et al.* (2004) such as overburden faculty and students alike in dealing with courses already saturated with related materials; accounting faculty may not wish to add forensic accounting topics to their courses primarily because of their own lack of comfort with forensic accounting topics; and lastly some of the existing accounting and auditing subjects may have to be dropped in order to add forensic accounting topics.

*Table 3. Approach/Prefer Level of integrating fraud/forensic accounting (FFA) (Question 2 and 3)*

	AS		AFM		ACS		TR	
	No	%	No	%	No	%	No	%
<b>Q3: FFA Approach</b>								
Offer a separate fraud/ forensic accounting courses	15	56%	11	33%	58	50%	84	48%
Integrate fraud/forensic accounting topics into existing accounting/ auditing courses	4	15%	15	45%	30	26%	49	28%
Integrate fraud/ forensic accounting modules into a second auditing course	8	30%	7	21%	27	23%	42	24%
	27	100%	33	100%	115	100%	175	100%
<b>Q2: FFA Level</b>								
Diploma / Certificate Level	3	11%	3	9%	8	7%	14	8%
Undergraduate Level	3	11%	4	12%	49	43%	56	32%
Graduate Level	6	22%	9	27%	15	13%	30	17%
Both Undergraduate and Graduate Level	15	56%	17	52%	43	37%	75	43%
	27	100%	33	100%	115	100%	175	100%

Source: Field Survey 2015

Key: AS - administrative Staff

AFM- Accounting Faculty Staff

ACS - Accounting member TR: Total Respondents

From Tables 3, there is evidence that a significant number of the respondents approximately 43% preferred fraud/forensic accounting to be taught at both undergraduate and post graduate level. It can be inferred from the above findings that a significant number of accounting student preferred both undergraduate and post graduate level because they can enroll for forensic accounting at post graduate level to increase their market value.

*Table 4. Fraud/forensic accounting (FFA) benefits and student expertise (Question 7)*

	TNR	TNRS	%TNR
<b>Q7: FFA impact on student</b>			
Inclusion of fraud/ forensic accounting as a course increase student expertise and fraud judgement	175	124	71%
Anti-fraud education, training & awareness mix with advance auditing & assurance increase student expertise	175	118	67%
A mentorship or internship before National Youth Corp Service in an audit firm increase student expertise	175	97	55%

Source: Field Survey 2015

Key: TNR: Total No. of Respondent

%TNR: % of Total No. of Respondent

Respondents were asked to indicate the extent to which they agreed that fraud/ forensic accounting education has positive impact on student expertise, skepticism and fraud judgment. From the findings in this study, as presented in Table 4, approximately 71% of the respondents indicated that inclusion of fraud/ forensic accounting as a course has positive impact in increasing student expertise and fraud judgment. In the same manner, 67% of the respondents agreed that anti-fraud education, training and awareness mix with advance auditing and assurance increase student expertise. However, about 55% of the respondents have contrary opinion by indicating that mentorship or internship before National Youth Corp Service (NYSC) in an audit/forensic accounting firm increase student expertise. The finding as presented in Table 4 is consistent with the findings of Carpenter, Durtschi, and Gaynor (2008), which established that emphasizes on fraud/ forensic accounting as a course will result in increased skepticism levels and related fraud judgments that are sustainable.

*Table 5. Effect of lack of administrative/faculty support (Question 9)*

	AS		AFM		ACS		TR	
	No	%	No	%	No	%	No	%
Current accounting curriculum may be outdated	12	44%	4	12%	25	22%	41	23%
Student may not be adequately prepare for demands in fraud/ forensic accounting duties	2	7%	2	6%	41	36%	45	26%
Numerous employment opportunities in forensic accounting may be lost	8	29%	8	24%	10	9%	26	15%
Current accounting curriculum may not be sufficiently responsive to society's demand	5	19%	19	58%	39	34%	63	36%
	27	100%	33	100%	115	100%	175	100%

Source: Field Survey 2015

Key: AS - administrative Staff      AFM- Accounting Faculty Staff      ACS - Accounting member      TR- Total Respondents

Given the increased demand for fraud/forensic accounting practice and education, respondents were asked to rank the importance of perceived effect of lack of administrative/accounting faculty support in developing and integrating fraud/ forensic accounting into the existing accounting curriculum on a five-point Likert scale, with “1” indicating “strongly agreed” and “5” representing “strongly disagreed”. Table 5 shows that accounting faculty respondents considered the following benefits as being important (percent response of higher than 30): (a) Current accounting curriculum may not be sufficiently responsive to society's demand for forensic accounting education and practice. (b) numerous employment opportunities in forensic accounting may be lost.

Administrative staff, while viewing the above effect of lack of support as important, also placed more emphasis on the current accounting curriculum that may be outdated (44%). Accounting student are of the opinion that student may not be adequately prepare for demands in fraud/ forensic accounting duties (36%) as the highest ranked effect of lack of administrative/faculty support. These results suggest

that lack of administrative/faculty support will have an adverse effect on the current accounting curriculum that may be outdated and not be sufficiently responsive to society's demand for forensic accounting education and practice.

*Proposition 1: Infusing Fraud and forensic accounting core competency will have no significant effect on student expertise and performance in fraud related judgment.*

Responses to Item 1 and item 2 of the questionnaire administered to respondents in tertiary institutions in southwest Nigeria were used to test hypothesis one. There are two different variables in hypothesis one under reference. These variables are:

- (a) Extent of infusing fraud and forensic accounting core competency (as independent variable)
- (b) Effective performance of graduate accountants in fraud related judgment (as dependent variable)

That is, effective performance of graduate accountants in fraud related judgment depends on the infusing fraud and forensic accounting core competency. Table 6 shows Chi-Square result.

*Table 6. Chi-Square Tests*

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	14.000*	12	.301
Likelihood Ratio	12.137	12	.435
N of Valid Cases	6		

- a. 20 cells (100.0%) have expected count less than 5. The minimum expected count is .17.

Findings from the fieldwork (Table 4) shows that all items are ranked above 50% by the respondents indicating that fraud/ forensic accounting education has positive impact on student expertise, skepticism and fraud judgment. Similarly, Table 6 reveals that the Pearson chi-square value of .301 or 30.1% which is higher than the two-sided asymptotic significance of the chi-square statistic 0.10 (10%). This therefore implies that the differences are due to chance variation, and the aim of effective performance of graduate accountants in fraud related judgment (such as detection, prevention and deterrence measures) are achievable with the inclusion of fraud and forensic accounting into existing accounting curriculum. Therefore the null hypothesis is rejected and the alternative hypothesis which stated that "Infusing Fraud and forensic accounting core competency will have significant effect on student expertise and performance in fraud related judgment" is accepted.

*Proposition 2: Fraud and forensic accounting cannot be integrated into exiting accounting curriculum in tertiary institutions in Nigeria.*

Responses to Item (1) of the questionnaire administered to both administrative staff, accounting faculty member, and 400-level/HND accounting student respectively were used to test hypothesis two. There are two different variables in hypothesis one under reference. These variables are:

- (a) “Extent of integrating Fraud and forensic accounting” (as independent variable);
- (b) “Exiting accounting curriculum in tertiary institutions” (as dependent variable).

That is, the success of “exiting accounting curriculum in tertiary institutions” in Nigeria depends on the potency of the “Fraud and forensic accounting” integration. Table 7 show chi-square result.

Table 7. Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.000 <sup>a</sup>	6	.238
Likelihood Ratio	8.318	6	.216
N of Valid Cases	4		

- a. 12 cells (100.0%) have expected count less than 5. The minimum expected count is .25.

The two-sided asymptotic significance of the chi-square statistic is greater than 0.10 that is, Pearson chi-square is 0.238 or 23.8%, so it's safe to say that the differences are due to chance variation, which implies that reviewing the current accounting curriculum in tertiary institutions in Nigeria depends on the potency of fraud and forensic accounting integration. Therefore the second null hypothesis is rejected and the alternative hypothesis which stated that “Fraud and forensic accounting can be integrated into exiting accounting curriculum in tertiary institutions in Nigeria” is accepted.

*Preposition 3: Lack of administrative support will have no significant effect in developing and integrating fraud/forensic accounting into existing accounting curriculum.*

Responses to Items 9 (i) and (iv) of the questionnaire administered to both administrative staff, accounting faculty member, and 400-level/HND accounting student respectively were used to test hypothesis three. There are two different variables in hypothesis three under reference. These variables are:

- (a) “Lack of administrative support” (as independent variable);
- (b) “Integrating fraud/forensic accounting” (as dependent variable).

That is, the effect in developing and integrating fraud/forensic accounting depends on administrative/faculty support or lack of support. Table 8 shows Chi-Square result.

**Table 8. Chi Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	35.000 <sup>a</sup>	30	.243
Likelihood Ratio	24.470	30	.750
McNemar-Bowker Test	.	.	. <sup>b</sup>
N of Valid Cases	7		

- a. 42 cells (100.0%) have expected count less than 5. The minimum expected count is .14.
- b. Computed only for a PxP table, where P must be greater than 1.

The chi-square test measures the discrepancy between the observed cell counts and what is expected if the rows and columns were unrelated. The two-sided asymptotic significance of the chi-square statistic is greater than 0.10 that is, Pearson chi-square is 0.243 or 24.3%, so it's safe to say that the differences are due to chance variation, which implies that effect in developing and integrating fraud/forensic accounting into existing accounting curriculum depends on administrative and accounting faculty support. Therefore, the null hypothesis is rejected meaning that lack of administrative support will have significant effect in developing and integrating fraud/forensic accounting into existing accounting curriculum is accepted.

## **5. Discussions and Conclusions**

The result of findings of the test of hypothesis two, has confirmed that inclusion of forensic accounting as a course increased student expertise, skepticism and fraud judgment. The findings is consistent with the findings of Carpenter, Durtschi, and Gaynor (2008), which established that emphasizes on fraud/ forensic accounting as a course will result in increased skepticism levels and related fraud judgments that are sustainable.

The opinion of respondents (administrative staff/academic members) towards forensic accounting education integration into existing curriculum shows that lack of administrative/faculty support will have an adverse effect on the current accounting curriculum that may be outdated and not be sufficiently responsive to society's demand for forensic accounting education and practice.

From the findings and result of the test of hypothesis three, the effect in developing and integrating fraud/forensic accounting depends on administrative/faculty support. Lacks of support have negative impact on fraud/forensic accounting education. The readiness of universities in taking up forensic accounting courses, the results indicate that very few of the academics specializes in forensic accounting. While the

lecturers all agree on the preponderance of fraud in the Nigeria environment and how forensic accounting can help in fraud prevention and detection, Nigerian universities are not yet ready to take up forensic accounting courses. There is a significant difference in the level of awareness of forensic accounting among practitioners, students and academics

Modern Forensics approach (MFA) is adopted by leading professional accounting bodies such as AICPA, Institute of Chartered Accountants of Nigeria (ICAN) for their Certified Forensic Accountants (CFA) program. The certification includes behavioural science components such as Criminology, psychology, sociology and investigative accounting. Tertiary institutions in developing nations are finding it difficult to integrate FFA into the existing accounting curriculum in spite of massive fraud in private and public sector. It seems that the accreditation agencies that regulate education curriculum development in the developing nations lack ideas of what to do. The position taken by Pointer, (2007) that a curriculum revision is one of the most daunting challenges facing faculty and the process is full of pitfalls and hurdles may be correct as far as developing nations tertiary institutions are concerned.

Accounting course developers need to note the following aspect in respect of philosophical belief or approach that may be adopted in integrating FFA into existing accounting curriculum. It is not the only solution to curriculum revision, but the suggestion of Pointer (2007) could serve as a pilot guide for such exercise.

*Faculty Involvement in the Curriculum revision:* An essential aspect of successful curriculum revision is involvement of the Faculty. The faculty of the program has valuable information about the program such as know the type of students in the program and their learning abilities; the course content and, the weaknesses of the courses. Their input into the process of curriculum revision is very valuable, but many of them may be resistant to change – especially when they feel “their course” is threatened. Leaving faculty out of the curriculum revision process invites resistance to the proposed changes.

*Consider stakeholders:* Stakeholders are an important source of information about the needs of a program. Students, alumni, faculty, and employers should be allowed to provide their insights into the needs of the program. Nigeria tertiary institutions in collaboration with relevant education regulatory agencies should consider seminars and conferences with the involvement of stakeholders in designing a curriculum acceptable to the need of society and meet education standard.

*Consider accreditation agencies' and governmental requirement:* When revising a program, consideration must be given to the guidelines provided by accrediting agencies. In Nigeria accreditation agencies in tertiary institutions (Universities and Polytechnics) include Nigeria Universities Commission (NUC) and National Board for Technical Education (NABTEB). Unfortunately, accreditation agencies in Nigeria

are yet to formulate policies towards integration of FFA into tertiary institutions in Nigeria. They need to consider Eligibility Procedures and Accreditation Standards for FFA education in developed nations using WVU model and ACFE model. FFA accreditation should contain elements that provide students with the following according to Pointer (2007): (1) Capacity to lead in organizational situations, (2) Capacity to apply knowledge in new and unfamiliar circumstances through a conceptual understanding of relevant disciplines, and (3) Capacity to adapt and innovate to solve problems, to cope with unforeseen events, and to manage in unpredictable environments.

*Consider the resources available:* Some of the challenges of infusing FFA into existing accounting curriculum in most developing nations have always be lack of resources (learning material, qualified faculty, technological resources and financial support). In planning a curriculum revision consideration need to be given to this area of interest.

*Consider why a change is necessary:* There are many reasons why a curriculum may need to be revised. Changes in resources, changes in the material covered, and changes in faculty are just a few of the causes of need to revise a curriculum. However, due to high-profile of corporate scandals and embezzlement by public and elected officials, there is urgent need for education in FFA and its integration into existing accounting curriculum in developing nations.

*Consider Planning:* Planning is essential aspect of curriculum revision. When the decision has been made to consider curriculum revision, a plan must be formulated and the goals of the revision must be stated. This include deciding who is going to oversee the revision; forming a cross-functional, volunteer faculty committee to gather information; designed surveys and distributed to students, alumni, faculty, employers, and other relevant stakeholders; conduct a benchmarking study to determine how relevant is the program to the society and stakeholders; and determined the goals of the revision (Pointer, 2007).

*Consider assurance of learning goals:* Doing the curriculum revision and addressing the assurance of learning at the same time facilitated the direction of both processes. Tertiary institutions in developing nations could borrow a leaf form the AACSB International accreditation standard number 15 which states, "The school uses well documented, systematic processes to develop, monitor, evaluate, and revise the substance and delivery of the curricula of degree programs, and toe assess the impact of curricula on learning" (AACSB 2007).

Following this statement, the standard lists areas of knowledge and skills that business programs, undergraduate and graduate, should contain. Tertiary institutions could use these two pieces of information to create a comprehensive curriculum and imbued assurance of learning goals and measurement within the accounting curriculum revision. In this regard, M.Sc. (Forensic Accounting) of

University of Benin and Diploma in Criminal Investigation and Forensic Accounting of University of Lagos are examples of curriculum integration that consider assurance of learning goals.

*Consider compromise:* In order for a curriculum revision to succeed, many compromises must be made. In limiting the approach to adopt in infusing FFA courses into the accounting curriculum, tertiary institution need to identify its areas of strength and availability of faculty to teach FFA. There is need to consider compromising some aspect of various view of stakeholder in order not to lose the original goal of integrating FFA into accounting curriculum revision. The competencies needed by both the undergraduate and graduates need to be considered. As a compromise, a Diploma or Post Graduate diploma in FFA concentration may be added to the curriculum.

*Understand that Change is Constant:* Accounting course developer should understand that change is constant. There is need therefore to have the ability to revise the FFA program easily in future as the environment (business, political, social) changes and add new course(s) or content to the courses without having to undergo another curriculum revision.

In conclusion, as Pointer (2007) argued, keeping these warnings in mind, a curriculum revision can be a rewarding and productive endeavor. A new curriculum can meet the needs of a program's graduates. The change in the curriculum can bring added enthusiasm to the faculty, and a new approach can address employers' needs.

It should be noted however, that one approach of integrating fraud and forensic accounting into existing curriculum is not being advocated over the other because the needs, prospects and challenges differ from tertiary institutions in Nigeria. Fund availability, faculty background and administrative support may play a significant role in chosen an approach. As noted by Smith and Crumbley (2009), course developers need to know that there are conceptual differences between fraud examination and forensic accounting. Forensic accounting/investigations are broad and far-ranging than fraud examination. Accounting curriculum developers need to determine whether they should base their program revisions on a fraud model, a more wide-ranging forensics model, or a combination of the two approaches. Such decisions affect the direction of learning and topic coverage in the accounting curriculum.

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