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# The Relationship between the Education of Forensic Accounting & Accounting Students Competence in Sudanese Universities

- \*Ahmed Yousif Adam Ismael ,\*\*Abdelwhab Musa Elgali
- \*Assistant Professor of accounting, Prince Sattam Bin Abdulaziz University, College of Sciences and Humanitarian Studies, Department of Business Administration. Al-Aflaj, KSA. Previously Assistant Professor of accounting, Peace University, College of managerial & financial sciences, Department of accounting.
- \*\* Assistant Professor of accounting, West Kordofan University, faculty of managerial, Economic and Social Sciences, Accounting and Finance Department. Sudan, Khartoum.

#### **Abstract**

Forensic accountant plays a significant role in decreasing risk of financial & managerial misstatement in companies. The purpose of this study is to investigate the link between the education of (FA) & accounting students competence with reference to Sudanese universities. In order to achieve this aim, Descriptive and inferential statistics were used to conclude the findings. Statistical package for the social sciences (SPSS) was used to analyze data and test hypotheses. The results of the study indicate that the inclusion of (FA) topics within the curriculum of the accounting department in Sudanese universities developed the characteristics and skills required for a forensic accountant. Also, the study concludes that the studying of (FA) increase the ability to detect the financial misstatement disputes in the future. The study recommends that there is a necessity for the Coordination between the academic & professional bodies on how to develop the (FA) in the Sudanese environment.

**Keywords:** Forensic Accounting; Accounting Education; Accounting Curriculum; Financial Misstatements, Accounting Students; Competence Accountant.

# 1. Introduction

The problem of the study is represented in what is the role that can be played by (FA) education in producing a competence accountants? There is increasing consideration of academics and professionals about forensic accounting due to the collapse of many companies around the world since 2002, and the subsequent the effect of the financial crisis in 2008, as a result, there is increasing demand for professional accountants with expertise in the forensic accounting, which led several American universities provide new programs in (FA) in an attempt to reduce risks of financial & managerial misstatement. Research constantly proves that banning cheating and expose false accounting practices are potent request as companies respond to closer scan of their financial actions by stockholders (Kahan, 2006). The problem-based nature of forensic accounting needs a wonderful way in offering forensic accountants contrast to common accountants, the essential attributes that a forensic accountant requires to have their mentality, method, and experience (Hendi, 2013). Also, Forensic services firms require strong work-based skills such as oral and written communication skills, technology and analytical skills, in addition to an accounting qualification, as part of their undergraduate or post-graduate degrees (Jeanette et al 2013). So Forensic accountants assess a company's real position through a acquisition and ensure that a taker is smart on the company's financial status while seeking for signs of doubtful accounting actin (Harris & Brown, 2000). As the request increases for professionals with (FA) skills, some universities are now display certificate programs, master's degrees in (FA) (mike, 2008).

The problem of the search can be summarized in answering these questions: What is the possibility of inclusion of (FA) in curricula at the accounting department? What is the impact of (FA) inclusion in curricula of the accounting

department on providing qualified accountant that contributes in deducting financial misstatements? What is the impact of inclusion (FA) in curricula of the accounting department on the accounting profession in the Sudan? The study tries to demonstrate the views of accounting staff members of the inclusion of (FA) in curricula of accounting departments. Also, identify the impact of the inclusion of (FA) in curricula of accounting departments in reducing the risk of financial & managerial misstatements.

# 2. Theoretical and Empirical Literature

The term of (FA) as a field of accounting profession appeared recently especially after economic collapse, so fraud and forensic accounting is a swelling scop of specialization accountants and others professions in attached rooms such as law, criminology, sociology, etc. (Eliezer and Emmanuel, 2015) state that there is important role of (FA) in prevention and detection of fraud in Nigeria, and conclude that (FA) is important professions in the light of contemporary of many stakeholders' circumstances. Also (Kubaisi, 2016) assess the importance of (FA) in the resolution of a financial nature of conflicts and find that the current reality of (FA) is far from achieving justice in the resolution of conflicts. In this direction (AlGalilee, 2012) believed that there is an important role of forensic accountants in money laundering protection because they possess investigative skills. (Oyedokun, 2015) show that (FA) profession is preventive which provides a percentage of high confidence and methods applied in the barring, detection, and deterrence of different financial fraud. (Zabihollah and. James 1997) concludes that the demand for (FA) education and practice will increase continuously and (FA) education should be integrated into accounting curricula either as a separate course or through modules in accounting and auditing. (Jeanette et al 2013) confirm that (FA) firms offer a wide range of fraud and non-fraud related investigative services that demand a diverse set of skills, expertise, and experience that constitute the role of a forensic accountant. The results indicate that (FA) has a place in the audit process and that auditors may need to add some of these skills as the market for audits have changed. (James 2009).

(Grippo and Ibex, 2003) illustrated that the most important skills of forensic accountants come from experience in accounting and auditing, taxation, business operations, management, internal controls, interpersonal relationships, and communication. (Ali, 2013) believed that (FA) based on a set of specialized skills that integrated accounting and auditing through the assessment of internal control systems. So (FA) involves the application of special skills in accounting, auditing, financial issues, quantitative methods and laws for analysis, evaluation and interprets the evidence reporting it (AICPA, 2005). According to (Messmer, 2004) successful forensic accountants must have analytical abilities, strong. In this direction (Nunn2006) Find that forensic accountants need many of the skills to perform their duties through education, training and communication skills. (Rezaee and Burtin, 1997) concluded that the demand for forensic accounting services will continue to increase, in addition, they found that the academics and certified fraud examiners differed in the opinion of how forensic accounting courses should be offered. Academics preferred to integrate forensic accounting topics in the existing accounting courses, whereas the certified fraud examiners preferred offering a separate course. (Ramaswamy, 2005) believed that forensic accountants should have the ability to comprehend the internal control systems of corporations and be able to assess their risks and understand the impulses behind criminal behavior that motivate and encourage financial deception. (Hao 2010) Touch the causes of spreading in misleading accounting information, weaknesses in the traditional auditing and the shortage in the institutes that concerned forensic accounting. (McMullen 2010) Believed that one of the most important skills required for forensic accountants is analytical skills, followed by accounting skills.

(FA) defined as the application of financial skills and an investigative mentality to unresolved issues, conducted within the context of the rules of evidence. (Bolgna and Linquist, 1995). Also, defined (FA) as using knowledge and skills of accounting, auditing and investigating in order to uncover the economic damage and the preparation of opinions in the investigations to support the processes of litigation and accounting retracing. (Weygandt et al., 2012). According to (Ahmed,2014, Al-sisi,2006), (FA) used a range of skills to combat the financial and administrative fraud such as: the skills that specialized in the prevention of fraud, the skills that dealing with the fraudulent methods of corruption, the use of modern technology methods to combat fraud and corruption in e-commerce environment, the skills of resolution of disputes and conflicts concerning with fraud and corruption, negotiating skills to resolve disputes relating to fraud and corruption, and specialized skills in the examination of Internet crimes and money laundering, etc. In order to be successful in the profession, a forensic accountant must possess the ability to analyze, communication skills, creative thinking, professional acumen and the ability of interview (Messmer, 2004).

Many of professional organizations in developed countries issued licenses and standards for exercising (FA) and organizing the (FA) profession. Also, there are many of universities teaching (FA) and other related sciences needed by practitioners of forensic accounting (Al-Snoussi, 2015). There are many of professional organizations working in combating fraud and granting licenses, for example: Association of Certified Fraud Examiners, the American Institute of Certified Public Accountants, Association of Certified Fraud Specialists, American Board of Forensic Accounting, National Association of Certified Valuation Analysts, Center of judicial matters of India, and Canada Institute of Chartered Accounting industry. (Qandil, 2014)

Based on theoretical background some hypotheses has been generated:

**H1:** There is a positive relationship between the awareness of staff member in accounting departments and the inclusion of forensic accounting in curricula.

**H2:** There is a positive relationship between the inclusion of forensic accounting in curricula and the ability of accountant in the deduction financial misstatements.

## 3. Methodolog

This study based on quantitative research design. Primary and secondary data has been used. The primary data were generated through a well-structured hundred (40) questionnaires were distributed randomly to some staff member of business & economic at Sudanese universities; only eighty-six (33) of them have been returned, with a restrain rate of 82.5% to investigate the relationship between the education of forensic accounting & accounting students competence in Sudanese universities. The questionnaire has been arbitrated by a potent expert to give higher quality and to ensure the precision of the questionnaire be obtained. The outcome of the precision test proves that the designed questionnaire is highly robust. So as to gain a reliable data, the selected scale items were transposed from English into the Arabic language to minify translation mistakes. The top section of the questionnaire comprises questions on respondents' characteristics. The another section of the questionnaire test the relationship between the education of forensic accounting & accounting students competence. A five-point Likert scale index were used, among 1 indicating strongly disagree and 5 indicating strongly agree.

#### 4. Results & Discussion

#### 4.1The Fineness of Measures:

In this study, the researcher applied a survey to investigate whether the education of forensic accounting helps in providing competence students in accounting departments. And the researcher asked the business & economic staff members 18 questions that pertained to their views about what skills are inherently important for being a forensic accountant. In consideration of the barrage of recent financial reporting scandals, the deductive analysis appears to be necessary and essential for forensic accountants to meet the objective of uncovering a potential financial fraud.

The study used various statistical modes. The descriptive statistics and correlations test were conducted to test the links among variables by using the SPSS 24.0 version. With respect to face, validity questionnaire has been on arbitrators specialists in the field of accounting.

#### 4.2 Respondents Demographic Features:

Table: 1 display the respondent's demographic characteristics. the respondents' ages between (less than 25 & 25 and less than 35 years) is the highest which represent (54%) followed by respondents' those (36 – 45years) which represent (24%) then the respondents' ages between (46 – 55years) which represent (18%) and lastly, the respondents ages (more than 55 years) which represent (3%). Regarding the respondent's specialisation, the majority of them were accounting specialisation (61%), followed by Accounting information system & Banking staff members (24%) followed by Business administration staff members (9%), and then followed by Economic staff members (6%). about the respondent's educational grade, the plurality of them had Master Degree which represents (61%), followed by Ph.D. degree (39%). With regard to the length of respondents' work expertise. The table offers that respondents' whom they have hold between (11-15 years) has a bigger ratio (30%) followed by who worked between (5 – 10 years) which represents (24%) followed by those work (16-20 years) which represent (21%), followed by who worked (More than 20 years) which represents (15%) and those respondents who worked (less than 5 years) have a lower ratio which represents (9%).

Table 1: Respondents Demographic Characteristics				
Variable	Description	Frequency	Percent	
Age	less than 25 years	9	27	
	25 – 35 years	9	27	
	36 – 45 years	8	24	
	46 – 55years	6	18	
	More than 55 years	1	4	
	Total	33	100	
	accounting	20	61	
	Business administration	3	9	
	Accounting information system	4	12	
	Banking	4	12	
	Economic	2	6	
	Total	33	100	
<b>Educational Level</b>	Master degree	20	61	
	PhD	13	39	
	Total	33	100	
Experience	less than 5 years	3	9	
	5 – 10 years	8	24	
	11-15 years	10	30	
	16-20 years	7	22	
	More than 20 years	5	15	
	Total	33	100	

# 4.3 Tests for Response Bias and Hypothesis:

An exam of restrain alignment has been conducted to assert that there is no methodical restrain alignment (Armstrong and Overton, 1977). To decide if non-response bias was existed in the study. It can be deducted that non-response bias is not a grave issue in this study. So, it is safety to join the responses as one sample. The following section describes the procedures used in the implementation of this study, including statistical analysis of data, extracting results, and validity test of the hypotheses.

<u>Testing of the First Hypothesis</u>: There is a positive relationship between the awareness of staff member in accounting departments and the inclusion of forensic accounting in curricula.

Table 2: Mediator for Phrases of the First Hypothesis					
The Gateway	Kay Value	The Degree of Freedom	Kay Tabular Trend	Possibility	
Studying of (FA) increase the understanding of the legal environment, communication skills, investigation, and risks management.	76.370	4	13.28	0.001	

The consideration of (FA) Leading to creation, and trust in judicial proceedings.	98.435	4	13.28	0.001
Studying of (FA) increase the knowledge of the legislation that concerning the financial issues & trade laws.	66.348	3	The top 13.34	0.001
The teaching of (FA) increases the experience in accounting information systems of the companies.	59.304	4	13.28	0.001
There are many parties in the world were awarded a certification of (FA).	131.90	4	13.28	0.001
The Judiciary is needing (FA) for the resolution of the financial conflicts fairly.	44.783	3	The top 13.34	0.001
The Judiciary need for (FA) is a continued.	85.304	3	The top 13.34	0.001
There is a need for the inclusion of (FA) in the curricula of Accounting department in Sudanese universities.	74.000	3	The top 13.34	0.001

#### The information in table 2 can be the interpreted as follows:

The value of Kay Square test on the differences between agreeing response the first phrase is (76.370), this value is greater than the value of the Tabular Kay Square at the degree of freedom (4) and Level of significance (1%) is (13.28). depending on what is stated in the table no. (2), there are differences with statistically significant at Level of significance (1%) between sample response result that for those who strongly agreed with this phrase. The value of Kay Square test on the differences between agree response, neutrals response and disagree response on the second phrase is (98.435), This value is greater than the value of the Tabular Kay Square at the degree of freedom (4) and Level of significance (1%) is (13.28), depending on what is stated in the table No. (2, there are differences with statistically significant at Level of significance (1%) between sample response result that for those who strongly agreed with this phrase. The value of Kay Square test on the differences between strongly agree on response & agree on response the third phrase is (66.348), This value is greater than the value of the Tabular Kay Square at the degree of freedom (3) and Level of significance (1%) is (13.34), depending on what is stated in the table No. (2), there are differences with statistically significant at Level of significance (1%) between sample response result that for those who strongly agreed with this phrase. The value of Kay Square test on the differences between agree response, neutrals response and disagree response on the fourth phrase is (59.304), This value is greater than the value of the Tabular Kay Square at the degree of freedom (4) and Level of significance (1%) is (13.28), depending on what is stated in the table No. (2), there are differences with statistically significant at Level of significance (1%) between sample response result that for those who agreed with this phrase. The value of Kay Square test on the differences between strongly agree response & agree response on the fifth phrase is (131.900), This value is greater than the value of the Tabular Kay Square at the degree of freedom (4) and Level of significance (1%) is (13.28), depending on what is stated in the table No. (2), there are differences with statistically significant at Level of significance (1%) between sample response result that for those who strongly agreed with this phrase. The value of Kay Square test on the differences between strongly agree response & agree response on the sixth phrase is (44.783), This value is greater than the value of the Tabular Kay Square at the degree of freedom (3) and Level of significance (1%) is (13.34), depending on what is stated in the table No. (2), there are differences with statistically significant at Level of significance (1%) between sample response result that for those who agreed with this phrase. The value of Kay Square test on the differences between agreeing on response on the seventh phrase is (85.304), this value is greater than the value of the Tabular Kay Square at the degree of freedom (3) and Level of significance (1%) is (13.34), depending on what is stated in the table no. (2), there are differences with statistically significant at Level of significance (1%) between sample response result that for those who s agreed with this phrase. The value of Kay Square test on the differences between strongly agree response & agree response on the eighth phrase is (74.000). This value is greater than the value of the Tabular Kay Square at the degree of freedom (3) and Level of significance (1%) is (13.34), depending on what is stated in the table No. (2), there are differences with statistically significant at Level of significance (1%) between sample response result that for those who agreed with this phrase.

For the connexion between the awareness of staff member in accounting departments and the inclusion of forensic accounting in curricula, inferential statistics shows that there is a significant positive correlation between predictor and the dependent variable (Table 2). So the above conclusion verifies that the first hypothesis of the study: "There is a

positive relationship between the awareness of staff member in accounting departments and the inclusion of forensic accounting in curricula" would be achieved.

<u>Testing of the second hypothesis</u>: There is a positive was the inclusion of forensic accounting in curricula and the ability of accountant in the deducting financial misstatements.

Table 3: Mediator for Phrases of the First Hypothesis					
The Gateway	Kay Calculated	The Degree Of Freedom	Kay Tabular Trend Display	Possibility	
The inclusion of (FA) in the curricula of Accounting department increase the skills of gathering information.	98.435	4	13.28	0.001	
Studying of (FA) increase the specialized skills in investigating the Internet crimes.	85.304	3	11.34	0.001	
The inclusion of forensic accounting in the curricula of Accounting department increase the specialized skills in detecting organized crime.	131.900	4	13,28	0.001	
Studying of (FA) supports the specialized skills in the detection of money laundering crimes.	44.783	3	11,34	0.001	
The inclusion of (FA) in the curricula of Accounting department increase the skills of providing advisory, legal and judicial services.	76.370	4	13,28	0.001	
Studying of (FA) increase the negotiation skills that related to the resolution of financial misstatement disputes.	64.261	3	11,34	0.001	
The inclusion of (FA) in the curricula of Accounting department increase the skills of providing services in immoral issues that related to the financial misstatement.	66.348	3	11.34	0.001	
Studying of (FA) supports the use of modern methods of information technology to combat financial misstatement.	52.435	3	11.34	0.001	
The inclusion of (FA) in the curricula of Accounting department provide skills and knowledge to deal with the fraudulent methods.	59.304	4	13.28	0.001	
The inclusion of (FA) in the curricula of Accounting department helps the student to exercise of the accounting profession properly in the future.	74.000	3	11,34	0.001	

# The information in table 3 can be the interpreted as follows:

The value of Kay Square test on the differences between agreeing response the first phrase is (98.435), this value is greater than the value of the Tabular Kay Square at the degree of freedom (4 and Level of significance (1%) is (13.28), depending on what is stated in the table no. (3), there are differences with statistically significant at Level of significance (1%) between sample response result that for those who strongly agreed with this phrase. The value of Kay Square test on the differences between agree response, neutrals response and disagree response on the second phrase is (85.304), This value is greater than the value of the Tabular Kay Square at the degree of freedom (3) and Level of significance (1%) is (11.34), depending on what is stated in the table No. (3), there are differences with statistically significant at Level of significance (1%) between sample response result that for those who strongly agreed with this phrase. The value of Kay Square test on the differences between strongly agree on response & agree on response the

third phrase is (131.900), This value is greater than the value of the Tabular Kay Square at the degree of freedom (4) and Level of significance (1%) is (13.28), depending on what is stated in the table No. (3), there are differences with statistically significant at Level of significance (1%) between sample response result that for those who strongly agreed with this phrase. The value of Kay Square test on the differences between agree response, neutrals response and disagree response on the fourth phrase is (44.783), This value is greater than the value of the Tabular Kay Square at the degree of freedom (3) and Level of significance (1%) is (11.34), depending on what is stated in the table No. (3), there are differences with statistically significant at Level of significance (1%) between sample response result that for those who agreed with this phrase. The value of Kay Square test on the differences between strongly agree response & agree response on the fifth phrase is (76.370), This value is greater than the value of the Tabular Kay Square at the degree of freedom (4) and Level of significance (1%) is (13.28), depending on what is stated in the table No. (3), there are differences with statistically significant at Level of significance (1%) between sample response result that for those who strongly agreed with this phrase. The value of Kay Square test on the differences between strongly agree response & agree response on the sixth phrase is (64.261), This value is greater than the value of the Tabular Kay Square at the degree of freedom (3) and Level of significance (1%) is (11.34), depending on what is stated in the table No. (3), there are differences with statistically significant at Level of significance (1%) between sample response result that for those who agreed with this phrase. The value of Kay Square test on the differences between agreeing on response on the seventh phrase is (66.348), this value is greater than the value of the Tabular Kay Square at the degree of freedom (3) and Level of significance (1%) is (11.34), depending on what is stated in the table no. (3), there are differences with statistically significant at Level of significance (1%) between sample response result that for those who s agreed with this phrase. The value of Kay Square test on the differences between strongly agree response & agree response on the eighth phrase is (52.435), This value is greater than the value of the Tabular Kay Square at the degree of freedom (3) and Level of significance (1%) is (11.34), depending on what is stated in the table No. (3), there are differences with statistically significant at Level of significance (1%) between sample response result that for those who agreed with this phrase. The value of Kay Square test on the differences between strongly agree response & agree response on the ninth phrase is (59.304), This value is greater than the value of the Tabular Kay Square at the degree of freedom (4) and Level of significance (1%) is (13.28), depending on what is stated in the table No. (3), there are differences with statistically significant at Level of significance (1%) between sample response result that for those who strongly agreed with this phrase. The value of Kay Square test on the differences between strongly agree response & agree response on the tenth phrase is (74.000), This value is greater than the value of the Tabular Kay Square at the degree of freedom (3) and Level of significance (1%) is (11.34), depending on what is stated in the table No. (3), there are differences with statistically significant at Level of significance (1%) between sample response result that for those who strongly agreed with this

For the relationship between the inclusion of the forensic accounting in curricula and the ability of accountant in the deduction of financial misstatements, inferential statistics shows that there is a significant positive interaction between predictor and the dependent variable (Table 3). So the above conclusion verifies that the second hypothesis of the study: "There is a positive relationship between the inclusion of forensic accounting in curricula and the ability of accountant in the deducting financial misstatements" would be achieved.

## 5. Conclusion & Implications

The increasing demands in the current regulatory, legal, and business environments should stimulate accounting programs to emphasize and embrace forensic accounting. This study explores the relationship between the education of forensic accounting & accounting students competence in Sudanese universities. The study concludes that the inclusion of forensic accounting topics within the curriculum of accounting department in Sudanese universities developed the characteristics and skills required for forensic accountant, as this confirm by (Jeanette et al 2013) who concludes that forensic accounting firms offer a wide range of fraud and non-fraud related investigative services that demand a diverse set of skills, expertise, and experience that constitute the role of a forensic accountant. The studying of forensic accounting increase the ability detect the financial misstatement disputes in the future, this result is supported by ((Oyedokun, 2015) who found that forensic accounting profession is preventive which provides a percentage of high confidence and techniques used in the profession of forensic accounting in the prevention, detection, and deterrence in the field of financial fraud in its all forms. According to (fletcher, et al 2008), many business schools have responded by redesigning the accounting curriculum to include fraud courses and programs to help prevent and detect fraud. Also, the study concludes that the inclusion of forensic accounting in the curricula of accounting department helps the student to exercise of the accounting profession properly in the future, this result is supported by (Samuel 2015) who find that fraud and forensic accounting education has a positive impact on student expertise, skepticism and fraud judgment. There is a need for the inclusion of forensic accounting in the curricula of Accounting department in Sudanese universities, this result is supported by (Zabihollah and. James 1997) who concludes that the demand for forensic accounting education and practice will continue to increase and that forensic accounting education should be integrated into accounting curricula either as a separate course or through modules in accounting and auditing.

The study provide a framework for the relationship between the education of forensic accounting & accounting students competence in Sudanese universities. This study practically contributes to the accounting profession by examining the importance of the connection between Forensic accounting concept, skills, and experiences.

The major limitation of this study is that the scope of the research is bounded and sampling method used, thus limiting the generalizability of the results. The study only applied in Sudan environment, this could result in an important limitation of the study. The study recommends that there is a necessity for the Coordination between the academic & professional bodies on how to develop the forensic accounting in the Sudanese environment. Also, the study recommends that. There is a necessity for training staff member to learn more about forensic accounting.

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