



**THE IMPACT OF FORENSIC ACCOUNTING
ON FRAUD DETECTION IN THE UAE BANKING SECTOR:
AN EMPIRICAL STUDY**

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Abstract:

Uncovering the financial fraud is the major attention on forensic accounting. Financial frauds have been growing strongly across the worldwide stage including UAE banking sector over the past decade. Consequently, the cumulative activities of financial frauds need the high engagement of forensic accounting to carry out the effective investigation as well as the performance of the individuals related with the criminal activities. The forensic accounting is anticipated to facilitate for reducing or preventing susceptibility of conventional accounting and audit systems contributing to financial frauds. In this research, the major focus is on determining the impact of forensic accounting practices in detecting and preventing the suspected frauds from the banking sector operation in the UAE. The major findings of this research show that there is a significant impact of forensic accounting on the detection of fraud within Banking Industry in UAE.

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Keywords: financial fraud, forensic accounting, audit system, fraud detection, banking sector

1. Introduction

Forensic accounting analyses the engagements resulting from the litigation. Along with the proactive forensic accounting practices, the organisation could identify the errors and deviant transactions. According to the discussion made by Nigrini (2012), forensic accounting refers to the multilateral practice of using accounting, auditing and investigative skills in order to assist in lawful matters. Kranacher, Riley and Wells (2010) have identified that forensic accounting can be considered as an aspect of accounting, which is suitable for lawful review as well as providing the higher level of assurance. The key focus on forensic accounting is to uncover the financial fraud (Ramamoorti, 2008). Over the past decade, the financial fraud has been increasing robustly across the global platform including UAE banking sector. Therefore, the increasing activities of financial fraud require high engagement of forensic accounting in order to carry out the successful investigation as well as the presentation of the individuals associated with the criminal activities. It is expected that the forensic accounting facilitates reducing or preventing susceptibility of conventional accounting and audit systems contributing to the financial fraud. According to Durtschi, Hillison and Pacini (2004), fraud refers to the act or the course of dishonesty, which is intentionally practised in order to enhance the illegal or unfair benefits. There are different types of fraud such as fictitious accounts, unauthorised lending, unofficial borrowing, manipulating vouchers, over invoicing and fake payment etc. With the help of forensic accounting, such fraud can be stopped.

For controlling fraud activities effectively in the UAE banking sector, forensic accounting in plays a significant role. In modern times fraud is not only rampant but also exponentially large in magnitude. This is because perpetrators of fraud are high caliber intellectual and have the ability to camouflage their wrong doings. Consequently, whenever any important decision is to be taken, maybe it is budgeting, financial cash flows or even high level corporate decisions such as takeover or mergers, project appraisals or any financial major commitment, the spectra of fraud, deception and overall risk looms high. The key issue is therefore to have some system of discerning early warning bells or to apply methods to spot red flags of potential risk, before taking any major step forward. Besides, over the past few years the banking sectors across the global platform have been focusing on the forensic accounting in order to reduce the frauds effectively. There are three key components of fraud including pressure, opportunity and justification (Singleton et al., 2006). The complete range of investigatory services and forensic accounting activities facilitates the banking sector in UAE to scrutinize the clients' resources against fraud. In this study, the importance of forensic accounting in detecting fraud in UAE banking sector has been discussed. In this context, examples of Islamic banks and conventional banks in UAE have been provided Although forensic accounting possesses a key role in fraud detection, it has some challenges. Therefore, the

problems of the study have also been analyzed along with the examples from UAE banking sector. In modern days, there are different types of financial frauds facing the banking sector around the world. In UAE, all banking organizations have been focusing on their forensic accounting method in order to prevent frauds effectively (Al-Marri et al., 2007). In this particular study, the all aspects of the financial accounting and their effectiveness in reducing frauds have been discussed. Some of the frauds that are encountered by the forensic accounting across the banking sector in UAE include over invoicing, duplication of cheque-books, computer frauds, false declaration of cash shortage, fake payment, manipulating vouchers, mistreatment of suspense accounts, and fraudulent utilization of firm's documents etc., the problem in this certain areas is further condensed due to the lack of studies and experiments regarding the impact of forensic accounting in detecting and mitigating frauds from the financial transactions and procedures, as part of the banking operations in UAE. Fraudulent activities in the commercial, as well as Islamic banking operations may have some significant negative implications on the profitability, performance, viability, reputation and sustainability. Frauds in the banking operation in UAE reflect perennial problems to the management of banking assets and regulations.

2. Literature Review

In this section, the extensive details of the literature reviewed for the entire study have been provided. It summarizes the key findings from relevant research. The purpose of reviewing a literature is to analyse the literature that is already existent to provide guidance to the study. The available literature will assist in critical analysis along with providing insights into the research methodology. Forensic accounting should be viewed as the appropriation of financial skills as well as investigative mentality that can be carried out within the contextual rules in order to solve the unsolved issues. Thus, the literature review systematically categorizes impact of occupational fraud, fraud triangle theory, fraud diamond theory, red flags of occupational fraud, fraud detection methods, how to react on fraud and country specific studies to provide the necessary substance for the overall research findings.

2.1 Theoretical Background

The amalgamation of investigative, auditing, and accounting skills are involved with the forensic accounting. It incorporates the usage of accounting techniques and concepts to legal cases. It requires reporting any case of fraudulent activity and the report is contemplated during administrative proceedings. According to the AICPA, "*forensic accounting services involve "the application of specialized knowledge and investigative skills possessed by CPAs"*". It is a field that possesses its own methods and models to conduct investigations that discover advisory, attestation, and assurance views to provide legal evidence (Eliezer and Emmanuel, 2015). According to the analysis conducted by Olukowade and Balogun (2015), forensic accounting employs auditing, accounting and

investigative skills in order to carry out an analysis of a company's financial statement. Over the past decade, the banking sector across the global platform has been facing intricacies due to the fraudulent activities. In order to reduce the financial fraud, most of the banks across the UAE have focused on forensic accounting practices. Forensic accounting also determines whether the criminal activities occurred. Ezejiofor, Nwakoby and Okoye (2016) have analysed in their article that forensic accounting refers to the special area of accountancy profession that describes the rendezvous resulting from actual or predictable disputes or lawsuit. Forensic accounting is also considered as a process of reviewing the legal matter and providing a high level of assurance.

About the banking industry, Digabriele (2008) viewed forensic accounting as the vital process of interpreting, summarising and reflecting the major financial issues from the organisational operations clearly, concisely and accurately as an expert witness. Therefore, the principles of forensic accounting are closely associated with the accounting disciplines assisting the banking division operations to detect and respond to the specific issues and concerns. As a result, forensic accounting is thrown into the forefront of the industry against the deception of various financial activities. On the other hand, Breton and Côté (2006) have referred forensic accounting as the integration of criminalities methods, accounting investigative activities and legal procedures for detecting and investigating financial crimes, as well as the economic misdeeds. The study regarded the forensic accounting practices as part of the highly technical and specialised area within the principles and ethics of accounting profession bringing reliability and assurance of financial services. As a result, it plays a pivotal role in the banking sector performance of the country irrespective of the type of operations. With the help of forensic accounting, the banking sector could easily uncover the financial fraud, which could affect the financial performance of the organisation. Due to increased practice of financial fraud, the banking sector focus on implementing forensic accounting practice in the organisation in order to carry out the successful investigation of criminal activities. According to the discussion carried out by Nigrini (2012), forensic accounting could offer a respite to the susceptibility of conventional accounting as well as auditing systems to the financial fraud practices.

As per Breton and Côté (2006), accounting frauds are conducted by preparing fraudulent or misleading accounting statements through manipulating the figures by overstating the assets, spurious entries of sales and profit, understating liabilities and debts or misappropriating the taxes. The accounting fraud is also defined by the deliberate and immoral manipulations of the accounting professionals in an organisation, such as the banking institution, in recording the data in financial statements for achieving a specific amount of operating profit for the company while appearing better than the actuality (Farrell and Franco, 1999). Therefore, corruption can be included in the description of financial crimes that involve nepotism, kickbacks, artificial pricing, political donations and frauds of various other kinds.

2.2 Measures of Forensic Accounting Practices

According to the observation of Ramaswamy (2005), some of the important financial measures, such as monitoring cheques and maintaining employee manuals as part of the forensic accounting methods for detecting and preventing unethical practices. Additionally, Golden et al. (2011) signified the importance of reviewing annual financial statements, sensitive documents and safeguarding the payroll, as some of the effective measures of forensic accounting to counter the possibility of suspected frauds and unethical conducts.

2.3 Relationship between Forensic Accounting and Agency Theory

According to Fullerton and Durtschi (2004), agency theory entails explaining the relationship between the principals, i.e., the shareholders, and the agents, i.e., the managers. Agency theory is one of the theoretical frameworks that have guided this research. It is highly applied in the literature for predicting and explaining the performance and appointment of external financial consultants and auditors. As part of the theory, the principal hires agents to perform works in the best interest of the principal. The distribution of the decision-making authority can result in the loss of efficiency and eventually the increase in the cost of operations.

2.4 Account Fraud Cases in UAE Banks

As the first Islamic Bank, Dubai Islamic Bank is an Islamic Financial Institution established in the year 1975. It is incorporated the principles of Islam principles of Islam in all its practices and is the largest Islamic bank in the UAE. This study highlighted about a case study in recent time where this particular financial institution faced certain issued based on frauds. The authority's campaigns against corruption countries based on the case of seven suspects. The fraud reached Dh1.8 Billion from Dubai Islamic Bank (DIB), and the case referred to court. This was one of the biggest cases measured regarding some irregularities. Fabricated Documents was the cause for this fraud (BassamZa'za, 2017). However, Fabricated Evidence is the false documents offered to any institution whether a financial institution or a non-financial institution. The ultimate objective is to mislead the authority with some specific aims (BassamZa'za, 2017).

2.5 Use of Forensic Accounting across Islamic and Conventional Banks in UAE

The forensic accounts in UAE are also present in Islamic and conventional banks and the main role of the forensic account is analysis and the investigation of the financial proof of the banks. Another role of the forensic account of those banks are to increase the computerised applications to help the study and exhibition of financial proof (Nigrini, 2011). The UAE based Islamic and Conventional banks are using forensic accountant instead of internal auditor and management team because there are some benefits to use the forensic accountant. The first benefit that a UAE based bank can get from the forensic accounts is creditability and neutrality. A forensic accountant has objectivity than an internal auditor or accountant (Efiong, 2012).

2.6 External Factors Impacting on Forensic Accounting

A study was carried out by Bhavani and Meheta (2017) on Forensic Accounting Education in the UAE. This study is useful for attaining a complete understanding of available courses on forensic accounting education for graduate and post graduate level, especially in forensic accounting field specialization. A minute amount of literature is only available for forensic accounting in gulf area particularly in UAE.

2.7 Government Rules

Rules and the regulations in a forensic way are made by the government who detects the fraudulent and cheats activity that undergoes the scanning process. The changing governmental regulations and accounting and fraud detection standards has a direct impact on the role of forensic accountants. It becomes imperative that forensic accountants need to be critically adaptable in nature with the changing accounting environment in order to enrich and comply with the audit franchise of the accounting profession (DiGabriele, 2009).

2.8 Inflation Rate

One of the most important external macroeconomic factors that require key consideration in forensic accounting is the prevailing rates of inflation. Mathuva (2014) identified through the review of relevant literature that cash conversion cycle (CCC) is a significant metric for the assessment of the performance efficiency of a business organisation in terms of its management of working capital. The calculation for preventable future loss is based on the accounts of the earnings in case of a trial and forensic accountants perform calculations taking into consideration the abnormalities in the differences between inclusion of inflation rates and their exclusion in the calculations (Brennan and Hennessy, 2001).

3. Research Methodology

In this section, investigating the approach, methods and practices to be followed to achieve the predefined aims and objectives of the study and its associated intentions are aimed.

3.1 Research Design

The cross-sectional survey research plan strategy has been utilized to outline this study. A cross-sectional survey configuration is a technique in which the researcher gathers data to make derivations about a population of interest at one point in time. It can likewise be portrayed as descriptions of the populations about which they assemble data. Cross-sectional survey configuration is methodology in which the researcher directs a survey to a little gathering of individuals with a specific end goal to distinguish "*ideas in state of mind, sentiments, practices or qualities of a huge gathering of individuals*" which called population (Creswell, 2008). The researcher in this study utilized the descriptive research

design. It has the advantage of gathering both qualitative and quantitative data and this was considered essential in investigating the IT project management.

3.1.1 Sampling Strategy

The purposive sampling has been chosen as the sampling technique for this research (Trochim, 2006). As per Trochim (2006) purposive sampling is the technique which looks for particular predefined bunches important to a research subject to take an interest in research. The characteristic of purposive (from the word intention) is to guarantee that data important to the research territory are gathered from research subject experts, knowledgeable individuals about the research and the individuals who are specialists in the branch of knowledge (Trochim, 2006).

3.1.2 Conceptual Framework

The development of “determinants of occupational fraud framework” was identified as a key objective of this current study. Such a framework will aid the understanding of the underlying components of determinants, their relationships and impact to the fraud. Figure 3.2 that follows, presents the conceptual model proposed for this study as developed using the information presented in the literature review.

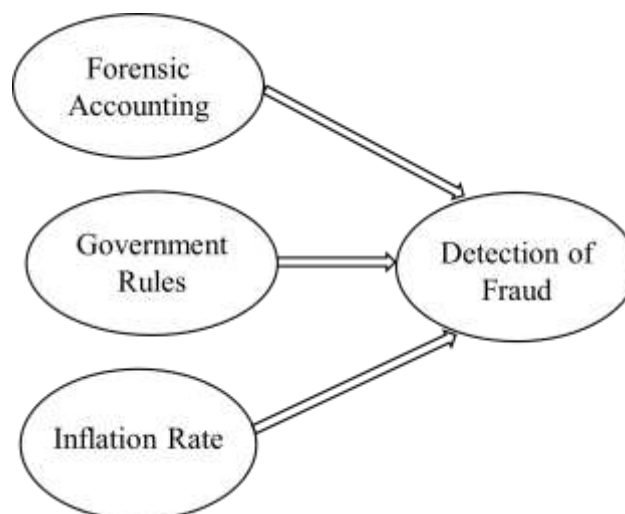


Figure 3.1: The Conceptual Framework

3.2 Research Hypothesis

Based on the conceptual framework, this research has several hypotheses as listed:

H(x)	Hypothesis
H1	There is a significant impact of forensic accounting on the detection of fraud within Banking Industry.
H2	There is a significant impact of Government rules on the detection of fraud within Banking Industry.
H3	There is a significant impact of inflation rate on the detection of fraud within Banking Industry.

3.3 Population and Sampling

The probability and non-probability are the two types of sampling. The key difference between non-probability and probability sampling is that non-probability sampling does not use a random selection of respondents, whereas probability sampling does (Miller et al. 2012). The researcher has used the non-probability sampling method in order to select the respondents. In this research, 200 employees from different banks in the UAE have been selected for survey questionnaire leading to generate quantitative data. For qualitative data, the researcher has selected 10 managers of the different banks across the UAE. The non-probability sampling has been used due to its cost and time-effective saving nature. With the help of non-probability or random sampling, the researcher has reduced bias answers or responses from the respondents.

3.4 Measurement and Instrument

3.4.1 Research Instruments

Questionnaires were used to gather the required data. A questionnaire is an instrument that a researcher can use to gather data from a chosen sample. It contains some laid down questions requesting responses on the area of study (Chisaka, 2000). Blumberg et al, 2011 added that it is a survey instrument that the researcher delivers to the respondent through personal or non-personal means with the aim of getting it completed by the respondent without necessarily having any additional contact with the researcher. This research used closed questions in the study. The Likert scale was adopted in constructing the questionnaires. Respondents were asked to select an answer that expresses their agreement or disagreement to a question on a scale as shown below; (Saunders et al 2009; Kaplan and Saccuzzo, 2012)

1. Strongly agree;
2. Agree;
3. Neutral;
4. Disagree;
5. Strongly disagree.

3.5 Data Collection

To the selected employees of different banks in UAE via email, WhatsApp and telephonic conversation, the questionnaire has been sent. Most of the respondents have provided their responses via email, while some respondents have given survey answers through telephonic conversation. The researcher has selected online platform for survey process to conduct the entire survey within a small timeframe.

3.6 Data Analysis

The analyses of primary data were conducted using IBM SPSS Statistics as recommended by Dancey & Reidy (2008) and Kinnear & Gray (2007). The online form in Microsoft Office Excel Format was imported into IBM SPSS version 23 and analyzed accordingly. Later, the software used was SMART PLS; this was especially useful for the preparation of

structural equation models for the present study. Prior to the main statistical analysis, the demographic statistics are first presented; the demographic statistics offer important overview of the collected data and the profile of respondents. A data summary of important descriptive statistics is then presented for all the main indicators and variables of the study. Mainly the mean statistics (\bar{x}) and standard deviation ($\sigma\bar{x}$) as measures of central tendency. The reliability of the various dimensions is observed by testing key reliability and validity statistics. Reliability is checked with the help of Cronbach Alpha check for internal consistency. The use of Cronbach Alpha as a measure of reliability and internal consistency is recommended by (Gliem & Gliem, 2003). Inter-item correlations were also observed in order to validate the dataset and ensure that no excessive correlations are observed (Gliem & Gliem, 2003). The multiple regression analysis was used to assess the interaction or predictive effect of independent variable elements over the dependent variable elements where:

$$y = a_1(x_1) + a_2(x_2) + a_3(x_3) + a_4(x_4) + \dots + a_n(x_n) + c \quad (1)$$

Where,

y = each stage within the risk management process,

$a_1 \sim a_n$ = the coefficient of the various strategic planning (or independent variables) elements the linear regression model,

$x_1 \sim x_n$ = elements of the independent variables,

and c = the constant of the regression model.

Same form of analysis will be conducted for all research hypotheses.

4. Results and Analysis

The results and their analysis address three research hypotheses. Through a confirmatory factor analysis (CFA), this study estimated the construct validity of variables. The Structural Equation Modelling (SEM) was employed to address the research hypotheses.

To begin with, this study analyzed the dissemination of the demographic variables (Gender, Qualifications, and Experiences) for all respondents. From that point onward, this study talks about the expressive analysis of the variables and the theory testing. This study utilized the SPSS to inspect the external and inward model appraisal and speculations testing. The decency of the external model related to the constructs of this study specifically Fraud, government rules, forensic accounting and government rules. At that point, the nature of the auxiliary model was analyzed through the construct validity. Next, the discoveries of the speculation testing techniques are accounted for and in addition the impact of independent variables (government rules, forensic accounting and government rules) on the dependent variable (fraud). At long last, this study contrasts the outcomes and past studies in part five.

4.1 Data Screening

The accuracy of the data is assured by the researcher through verifying all the items against the original data. After entering the data into SPSS software, a frequency test was performed to identify any missing data. Since the researcher took preventive action to decrease the rate of missing data, there were no missing values reported in the frequency analysis. Among the 300 questionnaires that were sent for the collection of the data, only about 200 respondents completed the survey. This represents that the response rate for the questionnaire was around 66.66%, which legitimizes the findings of the research study and the representation of the data collected.

4.2 Sample Profile

Q1) What is the type of bank in which you are working?

Types of Banks	Frequency	Percentage
Commercial Banks	68	34.00%
Merchants/ Investment Banks	44	22.00%
Islamic Banks	82	41.00%
Industrial Banks	6	3.00%
Total	200	100.00%

Responses are shown when the respondents were asked regarding the type of bank which the respondents are working. From the data which has been provided in the above given table it can be said that there are around 34.00% of the respondents who work in the commercial banks, 22.00% of the respondents work in the merchant/investment banks, 41% of the respondents said that they work in the Islamic banks and just 3% of the respondents said that they work in the industrial banks.

Q2) What are the number of years your Firm has been under operation?

No. of Years in Operation	Frequency	Percentage
1-5 years	17	8.50%
6-10 years	41	20.5%
11-15 years	83	41.5%
15-20 years	27	13.5%
More than 20 years	32	16.00%
Total	200	100.00%

The moment when respondents were asked to indicate the number of years of operation of their bank, 8.50% of the respondent said that their bank is operating for the past 1-5 years, 20.50% of the respondent said that their bank is operating for the past 6-10 years, 41.5% of the respondent said that their bank is operational for the past 11-15 years, 13.50% of the respondents said that their bank is operating for the past 15-20 years and around 16% of the respondents said that their bank is functional for more than 20 years. The findings of the above given table shows that the most respondents are working in those financial institutions and banks which are generally mature and have fully grown in

order to develop a proper understanding regarding the impact that the forensic accounting practices can have on the detection of the fraud in the bank.

Q3) Does Your Bank has the Forensic Accounting Department?

Responses	Frequency	Percentage
YES	200	100.00%
NO	0	0
Total	200	100.00%

From the responses that are provided above it could be said that 100% of the respondents said that their bank does have a proper forensic accounting department.

Q4) What are the number of employees working in your bank?

No. of Employees	Frequency	Percentage
0-100	23	11.50%
101-200	49	24.50%
201-300	51	25.50%
More than 300	77	38.50%
Total	200	100.00%

According to the data which has been provided by the respondents it could be said that around 11.50% of the respondents said that the total number of employees working in their bank is 0-100, 24.50% of the employees said that the total number of employees who are working in their organization is around 101-200. Further around 25.50% of the respondents said that the total number of employees who are working their bank is around 201-300, whereas 38.50% of the respondents said that in their bank there are more than 300 people working. The findings of the research study show that most of the banks which are operating in UAE are generally busy as there are more than 300 employees who are working in the organization and thus there are high chances of the occurrence of the fraud in these banks. Thus, the findings of the research study could be said to be valid.

4.3 Reliability

The reliability statistics for the study constructs are shown below. It shows the level of consistency between the constructs being tested (Babbie, 2016). This test ascertains that the output is similar and reliable with past and future outputs (Hair et al., 2010). For this, Cronbach’s alpha is used that defines the consistency of the variables measured. However, to be a reliable construct, the Cronbach’s alpha value should be 0.70 or higher (Nunnally & Berstein, 1994). The Cronbach’s alpha value was verified using SPSS.

Table 4.1: Reliability Statistics

Variable	Cronbach's Alpha
Forensic Accounting	.832
Government Rules	.762
Government Rules	.790
Detection of Fraud	.830
Overall	.860

4.4 Exploratory Factor Analysis (EFA)

Bartlett's Test of Sphericity has also been used to test the constructs validity. Then the Kaiser–Mayer–Olkin measure of sampling adequacy was employed to analyze the strength of association among the variables. The KMO measures the sample adequacy to determine the suitability of using factor analysis. Generally, KMO has been applied to assess which of the variables is needed to get drop from the model because of the multi-collinearity. The value of KMO varies from 0 to 1, and KMO overall should be 0.60 or higher in order to perform factor analysis (Hair et al., 2010). If not, then it is necessary to drop the variables with the lowest anti-image value until KMO overall rises above 0.60. Results for the Bartlett's Test of Sphericity and the KMO reveal that both were highly significant (see Table 4.11). The KMO value for this study is 0.857 and significant at 0.001 level ($p \leq 0.05$).

In context of the total variance explained, it should explain minimum 50% of the total variance (Brown, 2015; Cronbach, 1951). Total 6 factors were extracted through this test that accumulates total 73.32% of the total variance. Besides, each dimension has loaded in factor analysis with multiple indicators with factor loading 0.50 and above (a cut-off value of 0.50 was employed) that is based on all items. It also proves that all independent variables have strong relationship with dependent variable.

Table 4.2: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.857
Bartlett's Test of Sphericity	Approx. Chi-Square	8.551E3
	df	990
	Sig.	.000

Also, this study concludes that all the CFA results conducted passed the unidimensional, validity as well as reliability for further analysis. Table 4.16 summarizes the findings of the CFA results.

Table 4.3: CFA Results for the Measurement Models

	Name of Category	Required Value	Comments
	Unidimensional	Factor loading for each item ≥ 0.50	The required level is achieved
Validity	Convergent Validity	Average Variance Extracted (AVE) ≥ 0.50	The required level is achieved
	Construct Validity	All fitness indexes for the models meets the required level	The required level is achieved

	Discriminant Validity	The correlation between exogenous constructs is ≤ 0.85	The required level is achieved
Reliability	Internal Reliability	Cronbach alpha ≥ 0.70	The required level is achieved
	Construct Reliability	CR ≥ 0.60	The required level is achieved
	Average Variance Extracted (AVE)	AVE ≥ 0.50	The required level is achieved

4.5 Hypothesis Testing

First Hypothesis

As provided in the earliest of this research, the hypotheses which will be tested from analysis of the responses that are obtained from the respondents are provided as follows:

Null hypothesis (H0): There is no significant impact of forensic accounting on the detection of fraud within banking Industry.

Alternative hypothesis (H1): There is a significant impact of forensic accounting on the detection of fraud within Banking Industry.

For the purpose testing the research hypothesis the researcher has employed the correlation testing and the Chi-Square test. The findings of these tests as performed are provided below.

At first the researcher has conducted the correlation test to determine the significance of relation:

		Forensic Accounting Practices	Fraud Detection
Forensic Accounting Practices	Pearson Correlation	1.00	.78
	Sig. (2-tailed)		.000
	N	200	200
Fraud Detection	Pearson Correlation	.78	1.00
	Sig. (2-tailed)	.000	
	N	200	200

The findings of the above given table show that the value of the correlation is 0.78, which points out that the relation between the forensic accounting practices that are followed in the UAE banks and the detection of the fraud is significant and positive in nature.

Chi-Square Test:

Summary:	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Forensic Accounting Practices * Fraud Detection	200	100.0%	0	0.0%	200	100.0%

	Forensic Accounting Practices		
Fraud Detection	Yes	No	Total
Yes	140.00	12.00	152.00

	92.11%	7.89%	100.00%
	100.00%	20.00%	76.00%
	70.00%	6.00%	76.00%
No	.00	48.00	48.00
	.00%	100.00%	100.00%
	.00%	80.00%	24.00%
	.00%	24.00%	24.00%
Total	140.00	60.00	200.00
	70.00%	30.00%	100.00%
	100.00%	100.00%	100.00%
	70.00%	30.00%	100.00%

Statistic	Value	df	Asymp. Sig. (2-tailed)	Exact Sig. (2-tailed)	Exact Sig. (1-tailed)
Pearson Chi-Square	147.37	1	.000		
Likelihood Ratio	160.38	1	.000		
Fisher's Exact Test				.000	.000
Continuity Correction	143.02	1	.000		
Linear-by-Linear Association	146.63	1	.000		
N of Valid Cases	200				

As of the findings that have been provided in the table that has been provided above it could be said that as the value of the significance is less than the value of 0.05. This shows that the null hypothesis is rejected in this case and thus, we can say that there is a significant impact of forensic accounting on the detection of fraud within Banking Industry.

Second Hypothesis

Null hypothesis (H0): There is a no significant impact of government rules on the detection of fraud within Banking Industry.

Alternative hypothesis (H1): There is significant impact of government rules on the detection of fraud within banking Industry.

At first the researcher has conducted the correlation test to determine the significance of relation:

		Government Rules	Fraud Detection
Government Rules	Pearson Correlation	1.00	.79
	Sig. (2-tailed)		.000
	N	200	200
Fraud Detection	Pearson Correlation	.79	1.00
	Sig. (2-tailed)	.000	
	N	200	200

The findings of the above given table show that, the value of the correlation is 0.79, which points out that the relation between the Government rules and the detection of the fraud is significant and positive in nature.

Chi-Square Test:

Summary:	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Government rules * Fraud Detection	200	100.0%	0	0.0%	200	100.0%
	Government rules					
Fraud Detection	Yes		No		Total	
Yes	133		65		196	
	67.17%		32.83%		100.00%	
	100.00%		97.01%		98.00%	
	66.50%		32.50%		98.00%	
No	0.00%		2.00		4.00	
	0.00%		1.00%		1.00%	
	0.00		2.99%		2.00%	
	0.00		1.00%		2.00%	
Total	133		67		200	
	66.5%		33.5%		100%	
	100.00%		100.00%		100.00%	
	66.50%		33.50%		100.00%	

Statistic	Value	df	Asymp. Sig. (2-tailed)	Exact Sig. (2-tailed)	Exact Sig. (1-tailed)
Pearson Chi-Square	147.37	1	.000		
Likelihood Ratio	160.38	1	.000		
Fisher's Exact Test				.000	.000
Continuity Correction	143.02	1	.000		
Linear-by-Linear Association	146.63	1	.000		
N of Valid Cases	200				

As per the findings that have been provided in the table that has been provided above it could be said that as the value of the significance is less than the value of 0.05. This shows that the null hypothesis is rejected in this case and thus, we can say that there is a significant impact of government rules on the detection of fraud within Banking Industry.

Third Hypothesis

Null hypothesis (H0): There is no significant impact of inflation rate on the detection of fraud within Banking Industry

Alternative hypothesis (H1): There is a significant impact of inflation rate on the detection of fraud within banking Industry

At first the researcher has conducted the correlation test to determine the significance of relation:

		Government rules	Fraud Detection
Inflation Rate	Pearson Correlation	1.00	.65
	Sig. (2-tailed)		.000
	N	200	200
Fraud Detection	Pearson Correlation	.65	1.00
	Sig. (2-tailed)	.000	
	N	200	200

Above findings in the table show that the value of the correlation is 0.65, which points out that the relation between the inflation rate and the detection of the fraud is significant and positive in nature.

Chi-Square Test:

Summary	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Inflation Rate * Fraud Detection	200	100.0%	0	0.0%	200	100.0%
	Inflation Rate					
Fraud Detection	Yes		No		Total	
Yes	163		7		170	
	95.88%		4.12%		100.00%	
	100.00%		18.92%		85.00%	
	81.50%		3.50%		85.00%	
No	0		30		30	
	0.00%		100.00%		100.00%	
	0.00%		81.08%		15.00%	
	0.00%		15.00%		15.00%	
Total	163		37		200	
	81.50%		18.50%		100.00%	
	100.00%		100.00%		100.00%	
	81.50%		18.50%		100.00%	

Statistic	Value	df	Asymp. Sig. (2-tailed)	Exact Sig. (2-tailed)	Exact Sig. (1-tailed)
Pearson Chi-Square	139.93	1	.000		
Likelihood Ratio	162.36	1	.000		
Fisher's Exact Test				.000	.000
Continuity Correction	144.03	1	.000		
Linear-by-Linear Association	145.37	1	.000		
N of Valid Cases	200				

As per the findings that have been provided in the table that has been provided above it could be said that as the value of the significance is less than the value of 0.05. This shows that the null hypothesis is rejected in this case and thus, we can say that there is a significant impact of Government rules on the detection of fraud within Banking Industry.

H(x)	Hypothesis	Finding
H1	Forensic accounting has significant effect on detection of fraud.	Accepted
H2	Government rules has significant effect on detection of fraud.	Accepted
H3	Inflation rate has significant effect on detection of fraud.	Accepted

5. Discussion, Recommendations and Conclusion

5.1 Discussion

For sustaining effective banking operations, it is important for the banks to monitor fraudulent expense claims as it is generally the most prevalent type of fraud which is occurring in the banking sector in UAE. The various other reasons that were determined to affect the banking operations are: theft of cash, physical assets theft or theft of confidential information which have a significant effect on the overall banking operation. There was also risk due to the fraudulent practices that are followed in the payroll services of the banks. The research study finds that similar to the various other methods that are employed by the banks in UAE for reducing the occurrence of frauds in the banking operations, the forensic accounting services also provides confidence into the financial statements of the bank as it has a significant positive impact on prevention and detection of fraud which are usually done by the employees in the bank and does should be utilized more often in the efforts to reduce the occurrence of frauds in banks. The personal responsibility has emerged as one of the most utilized legal strategies that are adopted in different banking organization for the purpose of curbing the frauds.

With the research, it was found that litigation support, fraud investigation, business advisory services, resolution of dispute and expert consult station generally utilizes the analysis of financial component in the primary complaint probing the suspected financial performance provides practical business focus advice to the banking organization helps in undertaking negotiations for the purpose of dispute resolution and conflict resolving purpose and also provides help in evaluating the merits of various cases individually. The research study also concludes that one of the highest applications of the forensic accounting services is to enhance the quality of the financial reporting and also monitoring and evaluating the various internal control systems that are put in place by the bank.

As of the research, it was found that for the purpose of fraud prevention and fraud detection the most commonly used form of communication was using circulars within the organization. It was also found that most of the employees who are working in the banking of organizations that are operating in UAE work conversant with the different aspects of forensic accounting as most of the organization which has been reviewed in

this research study had a forensic accounting department and also apply the forensic accounting practices into their daily banking operations in an active manner.

The results of the research reveal that the forensic accounting services are generally appropriate for the courts in order to facilitate debate and discussion regarding claims. The main duty of a forensic accountant is to interpret, present, analyze and summarize difficult business related and financial related matters. In the case of UAE, the forensic accountants are usually employed by both the Islamic and the conventional banks and their main goal is to analyze and conduct the investigation of the financial proofs given by the bank. Another significant role that is played by the forensic accountant in these banks is to increase the computerized application for helping and in order to study and exhibit the financial proof. In the case of banking organizations in UAE, the department of forensic accounting generally provides help to the organization in collecting the documents and communicating and exhibiting the report, it provides help in legal proceedings and provides assistance to the court by giving expert opinion, it provides help to the court for making visual aid and backing the trial evidence. The key purpose for which the Islamic and the commercial banks operating in UAE appoint the forensic accountants is, to conduct investigation and providing litigation support. The forensic accounting department provides investigations support to the banking organization for assessing the realistic situation and providing valuable suggestions to the banks. They also provide help for improving the reserve and the assets of the bank. They are important for synchronizing with the other expert like examiners, private investigators, industry specialist and Consulting Engineers. They help the Banking organization for making progress in criminal investigative and civil statutory proceedings. The forensic accountants also provide litigation support to the Islamic and the commercial banks that are operating in UAE. Codification of corporate ethics, Transparency, Accountability and Truthfulness are the four important factors, which determine the functioning of the banking, with the view towards developing proper corporate governance. Corporate governance indicates the importance of stakeholders in any business whether in the financial institution and non-financial institution. Therefore, the forensic audit will attempt to remove all unwanted areas to adhere the corporate ethics chosen by the bank voluntarily.

5.2 Future Inferences

This research is constrained to a limited number of commercial and Islamic banks that are operating in UAE point but there are also several other Financial Institutions that are operating in UAE which have different process of investment and different process for applying accounting services in their operations, the future research studies can explore these financial institution to understand the overall view of the application of forensic accounting services in different financial Institutions. Further research studies can also be conducted on different internal controls that are employed by the Islamic banks and the commercial banks in order to control and prevent the occurrence of fraudulent practices.

5.3 Recommendations

Recommendations are made as below after conducting this research study:

- 1) It is suggested that it will be crucial for the banking organization to revise the structure of the organization in order to align its operations and Organization culture with the working and proceedings that are associated with the forensic accounting services.
- 2) The alignment process will also help in clearing the functionalities of the different departments in the banking organizations without having conflict with each other.
- 3) It is suggested that the banking organizations that are operating in UAE should formulate clear policies the purpose of guiding their accounting practices.

5.4 Conclusion

For sustaining effective banking operations, it is important for the banks to monitor fraudulent expense claims as it is generally the most prevalent type of fraud which is occurring in the banking sector in UAE. The various other reasons that were determined to affect the banking operations are: theft of cash, physical assets theft or theft of confidential information which have a significant effect on the overall banking operation. There was also risk due to the fraudulent practices that are followed in the payroll services of the banks. The research study finds that similar to the various other methods that are employed by the banks in UAE for reducing the occurrence of frauds in the banking operations, the forensic accounting services also provides confidence into the financial statements of the bank as it has a significant positive impact on prevention and detection of fraud which are usually done by the employees in the bank and does should be utilized more often in the efforts to reduce the occurrence of frauds in banks.

References

- Al-Marri, K., Moneim M. Baheeg Ahmed, A. and Zairi, M., 2007. Excellence in service: an empirical study of the UAE banking sector. *International Journal of Quality & Reliability Management*, 24(2), pp.164-176.
- Al-Tamimi, H., Hussein, A., Miniaoui, H. and Elkelish, W.W., 2015. Financial Risk and Islamic Banks' Performance in the Gulf Cooperation Council Countries. Available at: <http://www.khaleejtimes.com/article/20110428/ARTICLE/304289866/1002>
- BassamZa'za, S. (2017). Dubai Islamic Bank Dh1.8b fraud case referred to court. [online] Gulf News. Available at: <http://gulfnews.com/news/uae/crime/dubai-islamic-bank-dh1-8b-fraud-case-referred-to-court-1.56801> [Accessed 4 Sep. 2017].
- Bhasin, M.L., 2007. Forensic accounting: A new paradigm for niche consulting.
- Bhasin, M.L., 2013. Corporate Governance and Forensic Accountant: an Exploratory Study. *Journal of Accounting, Business & Management*, 20(2).
- Bhasin, M.L., 2015. Menace of frauds in the Indian banking industry: an empirical study.

- Bhavani, G., Mehta, A. and Amponsah, C.T., 2016. Forensic Accounting Education in the UAE.
- Bierstaker, J.L., Brody, R.G. and Pacini, C., 2006. Accountants' perceptions regarding fraud detection and prevention methods. *Managerial Auditing Journal*, 21(5), pp.520-535.
- Brazel, J.F., Jones, K.L. and Zimbelman, M.F., 2009. Using nonfinancial measures to assess fraud risk. *Journal of Accounting Research*, 47(5), pp.1135-1166.
- Brennan, N. and Hennessy, J. (2001). *Forensic accounting*. Dublin: Round Hall Sweet & Maxwell.
- Brennan, N. and Hennessy, J., 2001. Forensic accounting and the calculation of personal injury damages. *Bar Review*, 6(9), pp.533-539
- Breton, G. and Côté, L., 2006. Profit and the legitimacy of the Canadian banking industry. *Accounting, Auditing & Accountability Journal*, 19(4), pp.512-539.
- Caliyurt, K.T. and Idowu, S.O. eds., 2012. *Emerging fraud: Fraud cases from emerging economies*. Springer Science & Business Media.
- Carpenter, T., Durtschi, C. & Gaynor, L., 2011. The incremental benefits of a forensic accounting course on skepticism and fraud-related judgments. *Issues in Accounting Education*, 26(1), pp. 1-21.
- Cherian, J. and Farouq, S., 2013. Does effective leadership style drive financial performance of banks? Analysis in the context of UAE banking sector. *International Journal of Economics and Finance*, 5(7), p.105.
- Choy, L.T., 2014. The strengths and weaknesses of research methodology: Comparison and complimentary between qualitative and quantitative approaches. *IOSR Journal of Humanities and Social Science*, 19(4), pp.99-104.
- Cooper, D.R., Schindler, P.S. and Sun, J., 2006. *Business research methods* (Vol. 9). New York: McGraw-Hill Irwin.
- Creswell, J.W. and Clark, V.L.P., 2007. *Designing and conducting mixed methods research*.
- Creswell, J.W., 2013. *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.
- Creswell, J.W., Plano Clark, V.L., Gutmann, M.L. and Hanson, W.E., 2003. Advanced mixed methods research designs. *Handbook of mixed methods in social and behavioral research*, 209, p.240.
- Deephouse, D.L. and Carter, S.M., 2005. An examination of differences between organizational legitimacy and organizational reputation. *Journal of management Studies*, 42(2), pp.329- 360.
- DiGabriele, J. (2005). *Forensic accounting in matrimonial divorce*. Philadelphia, PA: R.T. Edwards, Inc.
- DiGabriele, J.A., 2009. Implications of regulatory prescriptions and audit standards on the evolution of forensic accounting in the audit process. *Journal of Applied Accounting Research*, 10(2), pp.109-121.

- Digabriele, J.A., 2008. An empirical investigation of the relevant skills of forensic accountants. *Journal of Education for Business*, 83(6), pp.331-338.
- Dorminey, J., Fleming, A.S., Kranacher, M.J. and Riley Jr, R.A., 2012. The evolution of fraud theory. *Issues in Accounting Education*, 27(2), pp.555-579.
- Durtschi, C., Hillison, W. and Pacini, C., 2004. The effective use of Benford's law to assist in detecting fraud in accounting data. *Journal of forensic accounting*, 5(1), pp.17-34.
- Efiong, E., 2012. Forensic accounting education: An exploration of level of awareness in developing economies-Nigeria as a case study. *International Journal of business and management*, 7(4), p. 26.
- Ehioghiren, E.E. and Atu, O.O.K., 2016. Forensic accounting and fraud management: Evidence from Nigeria. *Igbinedion University Journal of Accounting*, 2(8), pp.245-308.
- Ellingsen, I.T., Størksen, I. and Stephens, P., 2010. Q methodology in social work research. *International journal of social research methodology*, 13(5), pp.395-409.
- Enofe, A., Okpako, P. & Atube, E., 2013. *The impact of forensic accounting on fraud detection*. London: Sage.
- Enofe, A.O., Omagbon, P. and Ehigiator, F.I., 2015. Forensic Audit and Corporate Fraud. *International Journal of Economics and Business Management*, 1(7).
- Ettredge, M.L., Xu, Y. and Yi, H.S., 2014. Fair value measurements and audit fees: Evidence from the banking industry. *Auditing: A Journal of Practice & Theory*, 33(3), pp.33-58.
- Eyisi, A.S. and Ezuwore, C.N., 2014. The impact of forensic auditors in corporate governance. *Research Journal of Finance and Accounting*, 5(8), pp.31-39.
- Ezejiofor, R.A., Nwakoby, N.P. and Okoye, J.F., 2016. Impact of Forensic Accounting on Combating Fraud in Nigerian Banking Industry. *International Journal of Academic Research in Management and Business*, 1(1), pp.1-19.
- Ezejiofor, R.A., Nwakoby, N.P. and Okoye, J.F., 2016. Impact of Forensic Accounting on Combating Fraud in Nigerian Banking Industry. *International Journal of Academic Research in Management and Business*, 1(1), pp.1-19.
- Farrell, B.R. and Franco, J.R., 1999. The role of the auditor in the prevention and detection of business fraud: SAS No. 82. *Western Criminology Review*, 2(1), pp.1-12.
- Flick, U., 2015. *Introducing research methodology: A beginner's guide to doing a research project*. Sage.
- Fullerton, R. and Durtschi, C., 2004. The effect of professional skepticism on the fraud detection skills of internal auditors.
- Geerts, G.L., 2011. A design science research methodology and its application to accounting information systems research. *International Journal of Accounting Information Systems*, 12(2), pp.142-151.
- Gichuki, J.A.W., Njeru, A. and Tirimba, O.I., 2014. Challenges facing micro and small enterprises in accessing credit facilities in Kangemi Harambee market in Nairobi

- City County, Kenya. *International Journal of Scientific and Research Publications*, 4(12), pp.1-25.
- Golden, T.W., Skalak, S.L., Clayton, M.M. and Pill, J.S., 2011. *A guide to forensic accounting investigation*. John Wiley & Sons.
- Governance, G.C., 2015. *Good Corporate Governance*. Retrieved Maret, 25, p.2015
- Gray, D., 2008. *Forensic Accounting and Auditing: Compared and Contrasted to Traditional Accounting and Auditing*. *American Journal of business education*, 1(2), pp.115-126.
- Gupta, M. and Gupta, D., 2011. *Research methodology*. New Delhi: PHI Learning Private.
- Hahn, B. (2014). *Forensic Accounting*. Pearson Education Limited.
- Halbouni, S.S., 2015. The role of auditors in preventing, detecting, and reporting fraud: the case of the United Arab Emirates (UAE). *International Journal of Auditing*, 19(2), pp.117-130.
- Hayton, J.C., Allen, D.G. and Scarpello, V., 2004. Factor retention decisions in exploratory factor analysis: A tutorial on parallel analysis. *Organizational research methods*, 7(2), pp.191-205.
- Hopwood, W., Leiner, J. & Young, D., 2012. *Forensic accounting and fraud examination*. London: McGraw-Hill.
- Imoniana, J.O. and Silva, R.M., 2013. Revisiting the concepts of forensic accounting and corporate fraud. *International Journal of Auditing Technology*, 1(2), pp.175-202.
- Iqbal, M. and Molyneux, P., 2016. *Thirty years of Islamic banking: History, performance and prospects*. Springer.
- Ishizaka, A. and Nguyen, N.H., 2013. Calibrated fuzzy AHP for current bank account selection. *Expert systems with applications*, 40(9), pp.3775-3783.
- James L. Bierstaker Richard G. Brody Carl Pacini, (2006), Accountants' perceptions regarding fraud detection and prevention methods, *Managerial Auditing Journal*, Vol. 21 Issue 5 pp. 520 – 535.
- Jan, A. and Marimuthu, M., 2015. Altman model and bankruptcy profile of Islamic banking industry: A comparative analysis on financial performance. *International Journal of Business and Management*, 10(7), p.110.
- Kanagaretnam, K., Lim, C.Y. and Lobo, G.J., 2013. Influence of national culture on accounting conservatism and risk-taking in the banking industry. *The Accounting Review*, 89(3), pp.1115-1149.
- Kenya, B.I. And Oyier, O.E., 2013. *The Impact of Forensic Accounting Services on Fraud Detection and Prevention Among Commercial*.
- Khaleejtimes, 2011. Six jailed, fined Dh1.8b in Dubai bank fraud case. [Online]
- Koh, A.N., Arokiasamy, L. and Suat, C.L.A., 2009. Forensic accounting: Public acceptance towards occurrence of fraud detection. *International Journal of Business and Management*, 4(11), p.145.
- Krambia-Kapardis, M., 2002. A fraud detection model: A must for auditors. *Journal of Financial Regulation and Compliance*, 10(3), pp.266-278.

- Kranacher, M.J., Riley, R. and Wells, J.T., 2010. Forensic accounting and fraud examination. John Wiley & Sons.
- Lawrence, T.B., 1998. Examining resources in an occupational community: Reputation in Canadian forensic accounting. *Human Relations*, 51(9), pp.1103-1131.
- Levi, M. and Burrows, J., 2008. Measuring the impact of fraud in the UK: A conceptual and empirical journey. *The British Journal of Criminology*, 48(3), pp.293-318.
- Li, Y., Armstrong, A. and Clarke, A., 2014. Relationships of corporate governance mechanisms and financial performance in Islamic banks: a meta-analysis. *Journal of Business Systems, Governance and Ethics*, 9(1), pp.50-63.
- Mackey, A. and Gass, S.M., 2015. Second language research: Methodology and design. Routledge.
- Manning, G.A. and CFE, E., 2010. Financial investigation and forensic accounting. CRC Press.
- Mehta, A., 2012. Financial Performance of UAE Banking Sector-A Comparison of before and during Crisis Ratios. *International Journal of Trade, Economics and Finance*, 3(5), p.381.
- Menezes, A.D. and Pinto, P., 2016. Banking Frauds and Ways to Prevent Them.
- Miller, T., Birch, M., Mauthner, M. and Jessop, J. eds., 2012. Ethics in qualitative research. Sage.
- Morreale, S.P., Osborn, M.M. and Pearson, J.C., 2000. Why communication is important: A rationale for the centrality of the study of communication. *JACA-ANNANDALE-*, (1), pp.1-25.
- Mutua Mathuva, D., 2014. An empirical analysis of the determinants of the cash conversion cycle in Kenyan listed non-financial firms. *Journal of Accounting in Emerging Economies*, 4(2), pp.175-196.
- Nawaz, T., Nawaz, T., Haniffa, R. and Haniffa, R., 2017. Determinants of financial performance of Islamic banks: An intellectual capital perspective. *Journal of Islamic Accounting and Business Research*, 8(2), pp.130-142.
- Nelson, R., Brayman, J. and Barry, C. (1999). *Forensic Accounting*. Concord, New Hampshire: New Hampshire Bar Association. Continuing Legal Education.
- Neuman, W.L. and Robson, K., 2014. *Basics of social research*. Pearson Canada.
- Nigrini, M., 2011. *Forensic analytics: methods and techniques for forensic accounting investigations*. 558 ed. London: John Wiley & Sons.
- Olukowade, E. and Balogun, E., 2015. Relevance of Forensic Accounting in the Detection and Prevention of Fraud in Nigeria. *International Journal of Accounting Research*, 2(7), pp.67-77.
- Olukowade, E. and Balogun, E., 2015. Relevance of Forensic Accounting in the Detection and Prevention of Fraud in Nigeria. *International Journal of Accounting Research*, 2(7), pp.67-77.
- Owojori, A.A. and Asaolu, T.O., 2009. The role of forensic accounting in solving the vexed problem of corporate world. *European Journal of Scientific Research*, 29(2), pp.183-187.

- Ozkan, N., Cakan, S. and Kayacan, M., 2016. Intellectual capital and financial performance: A study of the Turkish Banking Sector. *Borsa Istanbul Review*.
- Özkul, F.U. and Pamukçu, A., 2012. Fraud Detection and forensic accounting. In *Emerging Fraud* (pp. 19-41). Springer Berlin Heidelberg.
- Panneerselvam, R., 2014. *Research methodology*. PHI Learning Pvt. Ltd..
- Pearson, T.A. and Singleton, T.W., 2008. Fraud and forensic accounting in the digital environment. *Issues in Accounting Education*, 23(4), pp.545-559.
- Pedneault, S., Silverstone, H., Rudewicz, F. and Sheetz, M., 2012. *Forensic accounting and fraud investigation for non-experts*. John Wiley & Sons.
- Pierre, E.A.S., 2012. *Post qualitative research. Collecting and interpreting qualitative materials*, 3.
- Polit, D.F. and Beck, C.T., 2004. *Nursing research: Principles and methods*. Lippincott Williams & Wilkins.
- Polit, D.F. and Beck, C.T., 2008. *Nursing research: Generating and assessing evidence for nursing practice*. Lippincott Williams & Wilkins.
- Ramamoorti, S., 2008. The psychology and sociology of fraud: Integrating the behavioral sciences component into fraud and forensic accounting curricula. *Issues in Accounting Education*, 23(4), pp.521-533.
- Ramaswamy, V., 2005. Corporate governance and the forensic accountant. *The CPA Journal*, 75(3), p.68.
- Ramaswamy, V., 2011. New frontiers: training forensic accountants within the accounting program. *Journal of College Teaching & Learning (TLC)*, 4(9), pp. 104-160.
- Renzhou, D., 2011. Research on legal procedural functions of forensic accounting. *Energy Procedia*, Volume 5, pp. 2147-2151.
- Rezaee, Z. and Burton, E.J., 1997. Forensic accounting education: insights from academicians and certified fraud examiner practitioners. *Managerial Auditing Journal*, 12(9), pp.479- 489.
- Rezaee, Z., Larry Crumbley, D. and Elmore, R.C., 2004. Forensic accounting education. In *Advances in accounting education teaching and curriculum innovations* (pp. 193-231). Emerald Group Publishing Limited.
- Saunders, M.N. and Lewis, P., 2012. *Doing research in business & management: An essential guide to planning your project*. Pearson.
- Saunders, M.N., 2011. *Research methods for business students*, 5/e. Pearson Education India.
- Salvary, S.C., 2001. *The Quantity Theory of Money and Financial Accounting Measurement: On the Influence and Impact of a Flawed Theory*.
- Sharma, A. and Panigrahi, P.K., 2013. A review of financial accounting fraud detection based on data mining techniques. arXiv preprint arXiv:1309.3944.
- Siegel, D.S., Waldman, D. and Link, A., 2003. Assessing the impact of organizational practices on the relative productivity of university technology transfer offices: an exploratory study. *Research policy*, 32(1), pp.27-48.
- Silverman, D. ed., 2016. *Qualitative research*. Sage.

- Singleton, T.W., Singleton, A.J., Bologna, G.J. and Lindquist, R.J., 2006. *Fraud auditing and forensic accounting*. John Wiley & Sons.
- Smith, J.A. ed., 2015. *Qualitative psychology: A practical guide to research methods*. Sage.
- Snyder, C., 2012. A case study of a case study: Analysis of a robust qualitative research methodology. *The Qualitative Report*, 17(13), p.1.
- Taylor, S.J., Bogdan, R. and DeVault, M., 2015. *Introduction to qualitative research methods: A guidebook and resource*. John Wiley & Sons.
- Temitope, O.A., 2014. Effect of forensic accounting on the financial performance of commercial banks in Nigeria. *Research Journal of Finance and Accounting*, 5(8), pp.103-105.
- The National, 2015. Pair jailed for Dubai bank loan scam. [Online] Available at: <https://www.thenational.ae/uae/pair-jailed-for-dubai-bank-loan-scam-1.53349>, [Accessed 04 September 2017].
- The National, 2016. Man jailed for three years for Dh700,000 bank loan scam. [Online] Available at: <https://www.thenational.ae/uae/man-jailed-for-three-years-for-dh700-000-bank-loan-scam-1.159432> [Accessed 04 September 2017].
- Utomwen, O. And Danjuma, E., 2015. *The Role of Forensic Accounting in Mitigating Financial Crimes*.
- Venkatesh, V., Brown, S.A. and Bala, H., 2013. Bridging the qualitative-quantitative divide: Guidelines for conducting mixed methods research in information systems. *MIS quarterly*, 37(1).
- Williams, C., 2011. Research methods. *Journal of Business & Economics Research (JBER)*, 5(3).
- Wolfe, D.T. and Hermanson, D.R., 2004. The fraud diamond: Considering the four elements of fraud. *The CPA Journal*, 74(12), p.38.
- Yin, R.K., 2013. *Case study research: Design and methods*. Sage publications.
- ZaherBitar, S. (2017). Fraud squad: Dealing with financial crimes. [online] Gulf News. Available at: <http://gulfnews.com/news/uae/general/fraud-squad-dealing-with-financial-crimes-1.477481> [Accessed 4 Sep. 2017].
- Zainal, Z., 2007. Case study as a research method. *Jurnal Kemanusiaan*.
- Zimbelman, M. (2012). *Forensic accounting*. Australia: South-Western/Cengage Learning.

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