

FINANCIAL INVESTIGATION AND FORENSIC ACCOUNTING TO AVERTING OF CORPORATE FRAUD

Dr. Atul Bansal, Professor – Accounting & Finance

DILLA UNIVERSITY, Dilla, Ethiopia

Contact : +91-9410470388 / +91-8899470388

Email : dr.atulbansal@gmail.com,

Abstract

Financial investigation and Forensic Accounting have been in focus in recent years mainly due to an excess of frauds that have taken place in the corporate sectors. The value of frauds executed in these sectors has been very large and caused severe financial strain on individuals, corporations and the government. Many of these financial frauds could have been detected earlier and possibly avoided by the use of forensic accounting techniques. The aim of this study is to determine the financial investigation and Forensic Accounting to averting the frauds and misrepresentations in the corporate houses.

The study attempts to identify the cause of frauds, the psychology of the typical fraudster, the warning signs of an impending or recurring fraud and measures to detect and prevent frauds. An analysis is made of Forensic Tools that can analyze data and detect unusual events that could act as an indicator of frauds. The study seeks to establish the forensic practices in vogue in the industry and its usage among the various professional categories of accounting professionals.

The prospects of the profession, the educational and training requirements are also evaluated. The study also uses a high level forensic tool in a case study into the major Indian Cement companies to detect whether prima facie there has been a likely manipulation of the books of account.

Key-words: *Forensic accounting, financial frauds, misrepresentation, miscellaneous fraud*

Introduction

Forensic accounting arises from the effect and cause of fraud and technical error made by human. Forensic accounting is quite new in India as companies have realized that the service of a forensic accountant is needed as fraud cases have substantially increased in number. Forensic accounting is the application of financial skills and investigative mentality to unsettled issues, conducted within the context of the rules of evidence. Forensic accounting as a discipline encompasses fraud knowledge, financial expertise, and a sound knowledge and understanding of business reality and the working of the legal system. Forensic accounting may be one of the most effective and efficient way to decrease and check accounting fraud.

A Statutory Auditor under the Indian Companies Act 2013 has to perform specific duties and pass his professional opinion on the prepared and certified financial statements. He uses a conventional audit tool that presumes that there are no major compromises in the financial statements. However, the legal position indicts the auditor liable for frauds that have a material significance on the financial statements. Conventional tools and audit procedures do not permit the Statutory Auditor a reasonable professional satisfaction with the final certified statement as there might have been deliberate concealments or enhancements in the statements. Often such unethical practices are resorted to by the Management and the Auditor would have unwittingly placed confidence in the certifications of the Management.

In the past Forensic Accounting was viewed as branch of accounting that was used only if a serious financial crime was committed. In recent years the science of Forensic Accounting has become pro-active. It seeks to prevent financial crime rather than investigate an already perpetrated crime or fraud.

Objectives

The study is to understand the analytical tools and techniques deployed by accounting professionals in their area of work. The main objective of the study is to examine the impact of Financial Analysis and Forensic Accounting averting and preventing the corporate fraud. The specific objectives are to:

- Find out the manner in which forensic accounting affect fraud detection.
- Ascertain if forensic accounting will restrain fraudulent activities.

- An analysis of financial practice to evaluate methodologies and techniques among selected corporate unit's professional categories individually as well as a group.
- To evaluate the rationale of using relevant financial ratios for a high level verification.

Scope

The purpose of the study was to

- Identify an instrument of financial analysis and forensic accounting to averting and preventing the corporate fraud.
- Understand the training needs in the forensic accounting profession as envisaged by the accounting professionals.

Hypothesis

There are four items considered for hypotheses validation. These are as follows

- There are no major statistical differences between professional preferences for the usage of Forensic Accounting Techniques between the five categories of accounting professionals.
- Professionals across the five categories do not plan for the usage of forensic accounting tests in the normal course of audit and scrutiny of financial data.
- The importance given to forensic accounting training is not identical across all the categories of professional accountants.
- Forensic Accounting is not in demand in five selected domains of professional activity.

Literature Review

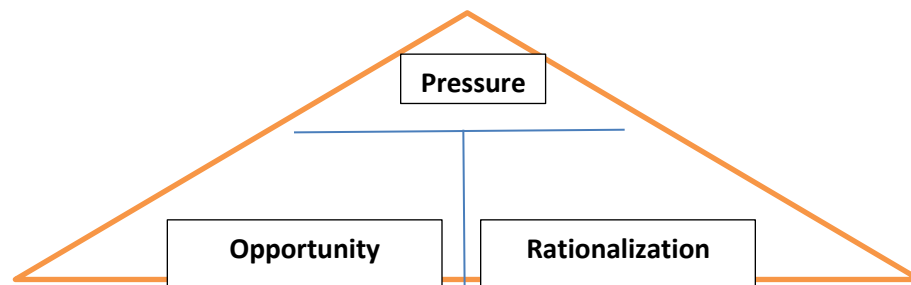
Section 17 of the Indian Contract Act 1872 defines fraud as meaning and including any of the following acts committed by a party to a contract, or with his knowledge - The suggestion of an incorrect fact with full belief in its falsehood./ The active concealment of a fact with knowledge of the fact. / A promise made without intention of performance. / Any act committed with the intention to deceive. / Any act or omission legally declared as fraudulent.

The **Business Dictionary (2013)** states that Fraud is dishonesty conducted for an advantage. A person who is dishonest is often called a “fraud”. In the United States, State and Federal statutes criminalize fraud, but not all cases are of a criminal nature. Prosecutors have been given the discretion in determining which cases to pursue that implicate fraud. Alleged victims may also seek redress in civil court for damages.

The legal requirement of **Companies Auditors Report Order 2015 (Clause xii)** places the auditor in an arduous situation. There is a clear and unambiguous requirement for the auditor to state whether any fraud has taken place in the company. This means even a minor fraud irrespective of materiality must be reported. The use of forensic tools will facilitate confidence in audit and financial reporting.

Ozkul and Pamukc, 2012, Since the 1980s in some Western countries, particularly in the USA, a new profession in the field of accounting and auditing has emerged. This profession identifies a field composed of accounting, auditing, and investigative skills.

The Fraud Triangle as described by Donald s depicted in Figure



KPMG (2011) has supported Sutherland’s conclusion and added that in addition to peer pressure, white collared crimes were also a result of social structural factors like capitalism, profit motive and business cycles. The influence of corporates over legislators or politicians was an important factor to be considered where the law legitimately endorses a social crime.

Singleton, T. W and Singleton, A. J. (2006). Fraud Auditing and Forensic Accounting. 3rd ed.

Stanbury and Paley-Menzies (2010) state that forensic accounting is the science of gathering and presenting information in a form that will be accepted by a court of jurisprudence against perpetrators of economic crime.

Singleton and Singleton (2010), said forensic accounting is the comprehensive view of fraud investigation. It includes preventing frauds and analyzing antifraud control which includes the gathering of nonfinancial information.

Forensic accounting has been pivotal in the corporate agenda after the financial reporting problems which took place in some companies around the world. These scandals resulted in the loss of public trust and huge amounts of money. In order to avoid fraud and theft, and to restore the badly needed public confidence, several companies took the step to improve the infrastructure of their internal control and accounting systems drastically.

Fraud Detection

Defining fraud is as difficult as identifying it. No definite and invariable rule can be laid down as a general proposition in defining fraud as it includes surprise, trick, cunning and unfair ways by which another is cheated. “Fraud is to create a misjudgment or maintain an existing misjudgment to induce somebody to make a contract”.

According to (**Ozkul and Pamukc, 2012**), the following are the objective of financial statement fraud: Increasing the market value of the business, making financial statements consistent with budgets and obtaining unfair earnings by presenting falsely the value of the business.

Methodology

The objective of the present research is to answer the research question and identify whether there is a relationship between forensic accounting and fraud detection and financial practice to evaluate methodologies and techniques among selected corporate unit’s professional categories. The survey method is selected for the purpose of this study in order to collect a sufficient amount of primary data. The use of questionnaires is the most widely used data collection technique in a survey and, in this study. The data collected are analyzed using Chi-square statistical software and OLS regression analysis these are employed and the results will be used to validate or invalidate the hypothesis. The findings will be discussed and conclusions will be drawn.

Data Analysis and Interpretation

Analysis of Hypothesis 1

Hypothesis 1 envisages that there are no major statistical differences in preferences in the usage of Forensic Accounting Techniques between the five categories of accounting professionals as specified in Sections. Factor Analysis was used for the analysis with the Principal Axis Factoring method for extraction. The Factor Analysis was performed after passing the tests of

- Sampling adequacy measured by the Kaiser-Meyer-Olkin (KMO) test and
- Bartlett Test of Sphericity for verification the correlation in the data set.

Rotated values obtained from Factor Analysis were used to interpret the meaning of the factors. The values are the standardized regression coefficients that are functionally related to a variable and the factor when other factors are held constant. Rotated values greater than 0.60 were considered significant for the analysis.

Data Analysis

The data was consolidated for all five professional groups and also segregated by professional groups. Professional groups that did not pass the KMO or Bartlett tests were grouped together and considered as a consolidated group. For the purpose of grouping professional categories, the similarity of professional functions were considered. For the purpose of an analysis of results, the categories adopted were

Category	Number of Significant Variables
High	Five or more
Moderate	Three to four
Low	Two or less

The summarized results of analysis are in Table 1.

Total Number of Variables Considered	28	28	28	28
Number of Significant Variables	18	13	14	14
Factor/ Group	All five Professional Categories	Professional Categories Practicing and	Domain Expert	Research Associates and Business

		Internal Auditors		Analysts
Usage of High Level Checks and Balances	High	High	High	High
Usage of Investigative Methodologies	Moderate	Moderate	Moderate	Low
Usage of Forensic Techniques and Tools	Moderate	Moderate	Moderate	Low
Usage of CAAT	High	Low	High	Low

Table-1 - Professional Preferences of High Level Checks and Balances to Detect and Prevent frauds

Analysis of Hypothesis 2

The objective of the analysis is to ascertain the checks and balances in Forensic Accounting and Fraud Detection practices in the normal course of audit and financial scrutiny of data among the five categories of professional accountants. The null hypothesis is that there is no statistical difference in preferences between the five professional types of accountants in the usage of forensic accounting tools and checking mechanisms.

Data Analysis

The data was from questions relating to eight variables indicating the usage of high level forensic accounting tools and techniques.

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Analysis Based on Similarities of Variances between Professional Categories

To further refine the analysis, the eight variables were then split into two groups based on approximate similarity of variances for all the five professional types.

A one way ANOVA test (with a 0.05 level of significance) on the two groups across the five professional types involving 136 samples had results where the computed value was lower than the critical value and the corresponding p-value was higher than the level of significance

signifying that the means of the samples were the same across the two groups. The null hypothesis was proven true.

Analysis of Practicing and Non-Practicing Professionals

The analysis was extended to determine if there were significant differences between the means of usage between two broad categories of professionals. The first category was practicing professionals and internal auditors whose functions were very closely related. This group was termed as ‘Practicing Professionals’. A two sample F-Test for statistical equality of variances was conducted on the two professional groups

- Practicing Professionals consisting of a sample size of 35
- Non-Practicing Professionals consisting of a sample size of 101.

The results at levels of significance ranging from 0.01 to 01.0 are in Table- 2

Serial	Level of Significance	F-Computed	F-Critical	P-Value	Decision
1	0.01	1.3521	2.0396	0.1595	Accept the Null Hypothesis
2	0.05	1.3521	1.6454	0.1595	Accept the Null Hypothesis
3	0.10	1.3521	1.4727	0.1595	Accept the Null Hypothesis

Table 2 – Results of F-Test at varying levels of significance

The computed value is lower than the critical value in all three cases and the computed p-value is greater than all three levels of significance. It can be concluded that there is no statistical significant difference in the usage of Forensic Accounting Tools between Practicing and Non-Practicing Professionals at levels of significance ranging from 0.01 to 0.10 (i.e. with a confidence levels ranging from 90.00 to 99.00%).

F-Test between Professional Types

To study the variance if any between all the five the professional types, a comparison of variances was made using the F-test at 0.05 level of significance.

The conclusion is that there are statistical significant similarities in practices followed in the usage of forensic accounting tools at a high level between the professional categories as in **Table**

Serial	Comparison Between	Statistically Similar
1	Practicing Professionals and Internal Auditors	Yes
2	Practicing Professionals and Domain Experts	Yes
3	Practicing Professionals and Business Analysts	Yes
4	Internal Auditors and Domain Experts	Yes
5	Internal Auditors and Business Analysts	Yes
6	Domain experts and Business Analysts	Yes
7	Practicing Professionals and Research Associates	No
8	Internal Auditors and Research Associates	No
9	Domain Experts and Research Associates	No
10	All Five Professional Types N	No

Table 3 – Summary of similarities observed in usage of forensic tools across professionals

Analysis of Hypothesis 3

The objective of the test is to ascertain whether or not there is similarity in consensus between the five professional categories on the training and education modules required for Forensic Accounting. The null hypothesis was that there were no statistical significant differences in preferences between the five professional types of accountants for training in the Forensic Accounting domain.

Data for the Analysis

A One Way Analysis of Variance (ANOVA) was conducted to verify whether the means of the five professional types were from the same population.

An intra-group analysis with each of the professional categories yielded the following analysis with five variables as depicted in Table 4

Serial	Training and Education Variables	Practicing Professionals	Internal Auditors	Domain Experts	Research Associates	Business Analysts
1	Likely increase in employment.	No	No	No	No	No
2	Training to include forensic accounting and fraud detection.	Yes	Yes		No	Yes
3	Include High Profile cases part of the training curriculum	Yes	Yes	Yes	Yes	Yes
4	Current training is not adequate	Yes	Yes	Yes	Yes	Yes
5	Mandatory use of Computer Aided Techniques	Yes	Yes	Yes	Yes	Yes
6	Continuous Post Qualification training.	Yes	Yes	Yes	Yes	Yes

Table 4 Summary of opinions on Professional Training among the Five Professional Categories

Analysis of Hypothesis 4

The analysis was aimed at obtaining the view of professionals for activities in the forensic accounting profession that are important and other emerging areas of importance. The null hypothesis envisages that there are no statistical significant differences in preferences between the five professional types of professional accountants in the areas of professional work the Forensic Accounting domain.

Results from the Analysis

The ANOVA tests failed at 0.05 level of significance across all professional categories including the consolidated category. The sample was subjected to F-Tests after classifying the sample into two categories.

- Practicing Professionals (N= 35)
- Non-Practicing Professionals (N = 101)

The samples passed the F-Test validating the null hypothesis.

The Factor Analysis was conducted using the Principal Axis Method for extraction and the Varimax method for rotation on the three categories of professionals who had passed the tests for data validity. The cut-off score for deciding relevance would be fixed at a minimum rotated score of 0.60. The conclusions from factor analysis are depicted in **Table 5**.

Serial	Areas of Profession Work	All Professional Categories	Practicing Professionals	Business Analyst
1	To be an Expert Witness in a Court of Law	No	No	Yes
2	To be an Arbitrator for Financial Litigation Support	Yes	Yes	Yes
3	To Detect Frauds and Irregularities	Yes	Yes	Yes
4	To Detect Weaknesses in the Internal Control Systems	Yes	Yes	Yes
5	To support Financial Claims during Marital Disputes	No	Yes	Yes

Table 5 Results for Professional Activities across Professional Categories

Analysis of Hypothesis 5

The objective of the analysis was to study the inclination to use Computer Assisted Audit Tools (CAAT). Only Practicing professionals and internal auditors (i.e. only two professional groups) were considered as the usage of CAAT is normally restricted to only these two groups in their professional practice. The null hypothesis is that there are no statistical differences between the two professional categories in the usage of CAAT.

Conclusions based on ANOVA

The analysis revealed that there were preferences as in **Table 6**.

Serial	Areas of Profession Work	Practicing Professional	Internal Auditors
1	Will invest and use the tools only if it is cost beneficial vis-à-vis manual effort	No	No
2	Will invest and use the tools if other professionals also use such tools	No	Yes
3	Will invest and use the tools only if the clients insist on such usage	Yes	Yes
4	Will invest and use the tools to minimize professional liability.	Yes	Yes
5	Will invest and use the tools if there are prospects of future business.	No	Yes
6	Will invest and use the tools only if it is made mandatory by the Audit Body	Yes	Yes
7	Will use the tools only if the client bears the cost of investment.	No	Yes

Table 6 – Variables likely to influence the decision to invest in CAAT for the categories of practicing Professionals and Internal Auditors

Usage of Forensic Accounting Techniques (Hypothesis-1)

The hypothesis envisages that there are no major statistical differences in preferences the usage of Forensic Accounting Techniques between the five categories of accounting professionals. Twenty eight variables (28) were identified as relevant to test the hypothesis. These were categorized under four major groups or factors. Each group had seven variables.

- **Kaiser-Meyer-Olkin (KMO) measure of Sampling Adequacy.**

This is a heuristic index to examine whether factor analysis is appropriate for the selected data set. In the analysis, only data sets that is above 0.50 and less than 1.00 were considered relevant for the analysis.

- **Bartlett Test of Sphericity.**

The test indicates whether or not the variables are uncorrelated in the data set. The default or null hypothesis in this test is that the data set is an identity matrix and each variable is perfectly correlated with each other and has no correlation with other variables. If the correlation matrix is created, the variables will have a value of 1 on the diagonals and zeros in the other cells. The null hypothesis should be proven false by obtaining a p-value of 0.05 or lower for the analysis to proceed.

- **Rotated Factors**

Rotated values are used to interpret the meaning of the factors. The values are the standardized regression coefficients that are functionally related to a variable and the factor when other factors are held constant.

- **Data Analysis**

The data was consolidated and also segregated by professional groups and subjected to the KMO and Bartlett Tests.

Professional groups that did not pass the KMO or Bartlett tests were grouped together and considered as a consolidated group. For the purpose of grouping professional categories, the similarity of functions was considered. For instance there is near similarity of tasks taken up by Practicing Professionals and Internal Auditors. Neither of these two groups passed the KMO and Bartlett tests. They were grouped together and after passing the KMO and Bartlett subjected to the Factor Analysis. The sample size for the consolidated group was 50. Professional groups that individually passed the data tests were only the Domain Expert group. Eight groups were considered for the analysis. These along with the results of data validity tests are depicted in **Table 7.**

Serial	Professional Group	Data-Set (Smpl) Size	KMO Quotient	Bartlett (pvalue)	Decision
1	All Five Professional Groups	136	0.885	0.00	Proceed With Factor Analysis
2	Only practicing Professionals	35	0.195	0.00	Reject Data Set
3	Only Internal Auditors	15	Unable to obtain	Unable to obtain	Reject Data Set

			Reject Data Set	Reject Data Set	
4	practicing & Internal Auditors	50	0.664	0.00	Proceed With Factor Analysis
5	Only Domain Experts	38	0.595	0.00	Proceed With Factor Analysis
6	Only Research Associates	23	Unable to obtain positive values	Unable to obtain positive values	Reject Data Set
7	Only Business Analysts	25	Unable to obtain positive values	Unable to obtain positive values	Reject Data Set
8	Research Associates and Business Analysts	48	0.665	0.00	Proceed With Factor Analysis

Table 7 - Sampling Adequacy as measured by the KMO Test and Correlation Tests measured by the Bartlett Test of Sphericity for the five consolidated professional groups.

Results of an analysis of all five professional groups.

The analysis initially considered all five professional categories as one group. One hundred and thirty six samples were tested. For the test only variables having high standardized regression coefficients that are functionally related to the factor when other factors are held constant were considered. Only high regression coefficient values in excess of 0.69 were considered relevant for the analysis. **Table - 8**

□ ----- GROUPS or FACTORS ----- □					
Serial	Variable	Usage of High Level Checks and Balances	Usage of Investigative Methodologies	Usage of Forensic Tools and Techniques	Usage of CAAT
1	Isolated Outliners				0.882
2	Single Transactions				0.844
3	Stratification of Data				0.834
4	Unusual/Repetitive Transactions				0.820
5	Classification of Data				0.819
6	Missing Serial Numbers				0.811
7	Techniques to review defective controls			0.750	
8	Duplication of Receipts / Payments				0.743
9	Relative Size Factor Analysis			0.732	
10	Usage of High Level Ratio Analysis	0.905			
11	Comparison of Trends and Patterns of Prior Years	0.892			
12	Usage of Benford's Law	0.857			

13	Fraud Examination Methodology	0.845			
14	Usage of Beneish Theorem	0.815			
15	Comparison with other firms in the industry	0.796			
16	Discerning Trends and Patterns	0.757			
17	Professional Pronouncements		0.822		
18	Professional Pronouncements		0.731		

Table 8 - Major factors and variables adopted by all five professional categories

Results on analysis on Practicing Professionals and Internal Auditors

The two categories were grouped as their individual data integrity values were not amenable for Factor Analysis. Thirteen variables with rotated values exceeding 0.69 were perceived in this combined professional category. The analysis yielded the rotated values depicted in **Table 9**

Serial	Variable	□----- GROUPS or FACTORS -----□			
		Usage of High Level Checks and Balances	Usage of Investigative Methodologie	Usage of Forensic Tools and Techniques	Usage of CAAT
1	Fraud Examination Methodology	0.815			
2	Usage of Benford's Law	0.810			
3	Usage of Beneish Theorem.	0.808			
4	Usage of High Level Ratio Analysis	0.927			
5	General Trends and Pattern analysis	0.805			
6	Discovering new Trends and Patterns	0.895			
7	Comparison with other firms in industry.	0.815			
8	Continuous Anti-Fraud Training		0.741		
9	Skills for interviewing employees		0.756		
10	Questioning Techniques		0.792		
11	Techniques to uncover conflict of interest			0.824	
12	Techniques to review defective controls			0.759	
13	Techniques for Litigation Analysis			0.742	

Table 10 -Major significant factors and variables in adopted by Practicing Professionals & Internal Auditors

Results of SPSS Factor Analysis for Practicing Professionals and Internal Auditors: The results of Factor Analysis performed using SPSS are detailed in this section.

Sample Size	50
Number of Variables 28	28
Factors to be extracted 4	4
Rotation Method	Varimax with Kaiser Normalization

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.885
Bartlett's Test of Sphericity	
Approx. Chi-Square	3992.217
Df	378
Sig	.000

Factor Matrixa –

Only Values > 0.50 have been considered.

Quotients with values > 0.69 are considered significant

The analysis yielded the rotated values depicted in Table 10

	Factor			
	1	2	3	4
GC1-Techniques to discover conflict of interest	.876			
GC5-Relative Size Factor Analysis	.867			
GC2-Techniques to review defective controls	.860			
GC7-Green Flags	.852			
GC3-Techniques to discover hidden assets	.851			
GC6-Red Flags	.847			
GC4-Litigation Consultation Techniques	.809			
GD1-Missing Serials	.801			
GD7-Isolated Outliners	.790			
GD4-Classification	.782			
GD5-Stratification	.780			
GD2-Duplicate Receipt & Payments	.733			
GD3-Unusual Round Numbers or Repetitive Odd Number	.719			
GD6-Single Transactions	.680			
GB6-Mathematical modeling				
GB7-Questioning Techniques				
GA1-Method. Fraud Examination		.836		
GA4-Usage of High Level Ratio Analysis		.817		
GA6-Comp of trends and patterns		.785		
GA2-High Level Techniques -Benford		.783		
GA3-High Level Techniques-Benish .740		.740		
GA7-Comparison with other firms in the Industry		.697		
GA5-Trends and patterns		.679		
GB5-Skills for interviewing employees		.606		
GB4-Professional pronouncements		.525	.520	

GB2-Continuous Anti- Fraud Training				
GB3-Anti-Fraud Standards				
GB1-Anti-Fraud Controls				

Table 10- Extraction Method: Principal Axis Factoring. a. 4 factors extracted. 7 iterations required.

Total Variance Explained in the Table 11

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	11.043	39.438	39.438	11.043	39.438	39.438	8.822	31.508	31.508
2	6.045	21.590	61.028	6.045	21.590	61.028	5.607	20.024	51.532
3	2.705	9.660	70.689	2.705	9.660	70.689	4.915	17.553	69.086
4	1.345	4.804	75.493	1.345	4.804	75.493	1.794	6.407	75.493
5	.926	3.307	78.801						
6	.684	2.443	81.244						
7	.598	2.134	83.378						
8	.545	1.946	85.324						
9	.479	1.712	87.036						
10	.452	1.614	88.650						
11	.387	1.381	90.030						
12	.322	1.150	91.180						
13	.314	1.123	92.303						
14	.296	1.058	93.361						
15	.269	.959	94.320						
16	.210	.749	95.069						
17	.193	.688	95.757						
18	.175	.627	96.383						
19	.155	.554	96.937						
20	.148	.527	97.465						
21	.136	.485	97.950						
22	.112	.401	98.351						
23	.111	.396	98.747						
24	.100	.357	99.104						
25	.083	.297	99.400						
26	.068	.243	99.644						
27	.055	.196	99.840						
28	.045	.160	100.000						

Table – 11 Extraction Method: Principal Component Analysis

Activities in the Forensic Accounting Domains considered important. (Hypothesis-4)

The analysis was aimed at obtaining the view of professionals for activities in the forensic accounting profession that are important. Respondents were also asked to project emerging areas of importance.

ANOVA results for the professional categories

The initial ANOVA results for all five as well as the consolidated categories tended to reject the null hypothesis that there are no statistically significant differences in preferences between the five professional groups. The results are in Table.

The Table 12

Serial	Professional Category	N=	F(Computed)	F-(Critical)	P-Value	Decision on Null Hypothesis
1	All Categories	136	506.79	2.3851	0.00	Reject
2	Practicing Professionals	35	139.44	2.42	0.00	Reject
3	Internal Auditors	15	38.14	2.50	0.00	Reject
4	Domain Experts	38	158.28	2.42	0.00	Reject
5	Research Associates	23	129.77	2.45	0.00	Reject
6	Business Analysts	25	108.56	2.45	0.00	Reject

Table 12 – Results of ANOVA across professional categories

Forensic Accounting activities

The results indicate that in all cases the computed F-values are greater than the critical F-values and the p-values are less than 0.05 level of significance. The null hypothesis was rejected. There are perceived differences between professional categories on the activities that are being performed by forensic accountants.

F-Test

An F-test was conducted after dividing the samples into two broad categories. 1. Practicing Professionals. 2. Non-Practicing Professionals.

The results of the F-test at 0.05 level of significance are in **Table 13**

Serial	Item	Practicing	Non-Practicing
1	Number of Samples	35	101
2	Mean	24.48	24.45

3	Variance	3.15	2.49
4	Degrees of Freedom	34	100
5	F-Value	1.27	6
6	F-Critical	1.65	1.65
7	P(F<f) one tail	0.22	0.22

Table 13—Results of F-Test across two broad professional categories for forensic accounting

As the computed F-Value is less than the critical value, the null hypothesis was accepted that there are no differences in perception of forensic accounting activities between professional and non-professional categories.

Conclusion and Recommendation

The study initially stated on the need for ascertaining the professional practices in vogue in the areas of forensic accounting and fraud detection. Research gaps in the available domain were identified and the study proceeded to bridge the gaps with survey and analysis. The survey hypothesis was created based on the opinions of professionals. Extensive literature reviews were conducted in the areas of

- Fraud definitions
- The psychology of fraud
- Findings of various commissions on fraud in India and abroad.
- An evaluation of the various kinds of fraud
- A history of major financial frauds that had taken place in the world and in India.
- An evaluation of four selected industries where typical frauds can be detected.
- Frauds in a computerized environment.
- The statutory liability of the certifiers of statements in the event of fraud.

References

- **Accounting WEB. (2011, July 16).** Forensic Accountants are increasingly becoming part of legal team. Retrieved May 15, 2014, Accounting Web: <http://accountingweb.com/technology/trends/fa>

- **AICPA Statement on Auditing Standards. (2012).** Financial Reporting “Red Flags” and Key Risk Factors. Retrieved Dec 2, 2014, from [http://www2.gsu.edu/~wwwseh/Financial%20Reporting%](http://www2.gsu.edu/~wwwseh/Financial%20Reporting%20Statement%20on%20Auditing%20Standards.pdf)
- **Albrecht W Howe K Romney M. (2010).** Deterring Fraud: The Internal Auditor's Perspective. Institute of Internal Auditors Research Foundation.
- **American Institute of Certified Public Accountants. (2011).** Why Would You Ever Need a Forensic Accountant.
- **Association of Certified Fraud Examiner (ACFE) (2012).** Report to the Nations on Occupational Fraud and Abuse. Austin, TX: Association of Certified Fraud Examiners.
- **Association of Certified Fraud Examiners. (2015).** The Fraud Triangle.
- **Companies Auditors Report Order 2015** (Clause xii)
- **Cornell University Legal Information Institute. (2014).** Bankruptcy fraud. Retrieved Mar 12, 2015, from [www.law.cornell.edu:](http://www.law.cornell.edu/wex/bankruptcy_fraud) https://www.law.cornell.edu/wex/bankruptcy_fraud
- **Farrell R. (2013).** Forensic Tools and Techniques for Internal Auditors. Retrieved Jul 1, 2015, from <http://www.powershow.com/view/3c8401>
- **Institute of Chartered Accountants of India. (2011).** Study on Investigative Audits. New Delhi: ICAI Publications.
- **Institute of Chartered Accountants of India. (2012).** Data Analytics and Continuous Control Monitoring. New Delhi: ICAI Publications.
- **International Accounting and Auditing Standards Board. (2012, Feb).** Professional Skepticism In An Audit Of Financial Statements. Retrieved Oct 13, 2015,
- **Joshi, P. (2013).** India Forensic. Retrieved September 20, 2014, from [indiaforensic.com:](http://indiaforensic.com/definition.html) <http://indiaforensic.com/definition.html>.
- Kaul V. (2015, Mar 11). All you wanted to know about the coal scam. Retrieved 25 Aug, 2015, from <http://www.dnaindia.com>
- **Kinyanjui S. (2015).** Analysis of Fraud from a Criminologist Perspective. Retrieved Aug 2, 2015, from <http://www.academia.edu/>:
- **KPMG. (2011).** [kpmg-institutes.com](http://kpmginstitutes.com/institutes/advisory-institute/articles/2013/07/integritysurvey-2013.html). Retrieved Jun 23, 2015, from [http://kpmg](http://kpmginstitutes.com/institutes/advisory-institute/articles/2013/07/integritysurvey-2013.html)

- **Lekshmi B. (2012). Kinds of Embezzlement Arthasastra, Audit and Tax.** Retrieved Mar 1, 2015, from www.caclubindia.com/: <http://www.caclubindia.com/forum/kinds-of-embezzlement>
- Michael, J. (2011). *Creative Accounting Fraud and Internal Audit Scandels*. New York: Wiley.
- **Omar N Koya K Samusi M Sharpie V. (2014, Apr).** Financial Statement Fraud; A Case Study using Beneish Model and Ratio Analysis. *International Journal of Trade Economics and Finance*, 5(2).
- **Ozkul, F.U., & Pamukc, A. (2012).** *Fraud detection and Forensic Accounting*, Istanbul, Turkey.
- **Reserve Bank of India. (2015, May 7).** Retrieved Feb 23, 2016, from Framework for dealing with loan Frauds: <https://www.rbi.org.in/Scripts/NotificationUser.aspx?Id=9713&Mode=0>
- **Unwala H. (2010, Jan 15).** Major Root Causes For Frauds & Detection. Retrieved Jan 15, 2014, from www.icsi.edu: www.icsi.edu/docs/portals/70/5jan11.pdf
- **Wells J. (2007).** *Encyclopedia of Fraud*. Austin: Association of Certified Fraud Examiners.
- **Zyman, M. (2009).** *Litigation: Forensic Accounting Demystified*. Retrieved December 24, 2014, from <http://forensicaccounting.com/home.html>