CHAPTER 6

FINDINGS, CONCLUSIONS AND SUGGESTIONS
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CHAPTER 6
FINDINGS, CONCLUSIONS AND SUGGESTIONS

6.1 SUMMARY OF STUDY:

An increasing corporate scandal has shown a great demand of Forensic accountant. They are professional with high expertise in detection and of Fraud. Forensic accountant are also hired to prevent and identified the fraud. Auditing has its own limitation as the main objective in audit is to prove “True and Fair View” i.e. all the document support the financial transaction. Auditor has to give his report on the basis of audit conducted on the basis of documentation shown, in doing so there is a chance i.e. incidental object of auditing is to detect errors and fraud. Frauds are very difficult to identify as compare to errors. Forensic accountant are trained professional and their objective itself is to investigate fraud, quantum of frauds and what could have been done to prevent such fraud. Forensic accountant applies the forensic accounting tools to prevent and detect fraud. Frauds such as technological fraud and occupational frauds have an adverse effect on the economy. Technological Frauds can be controlled with the help of Computer Forensic tools. Banks, Information Technology, Insurance Companies and other company use such tools to prevent and identified fraud. Precautions are taken by the organization so that damages can be minimized and if possible it can be eliminated from the system.

The main purpose of the study was to know difference between auditing and forensic accounting and its application in selected industries of Mumbai. Forensic accountant with help of techniques and computer forensic detect and prevent occupational frauds, technological fraud and other frauds.

For the purpose of analysis both primary and secondary data were used. Primary data was collected with the help of questionnaires and secondary data was collected from various books, journals, new articles, websites etc. The study was based on four hypotheses which were tested using statistical test. The conclusion drawn from testing of the hypotheses forensic accounting significantly helps in reducing and prevention of frauds. Study also reveals that techniques and computer forensic tools significantly helps in reducing and preventing occupational and technological frauds.
6.2 FOLLOWING ARE THE FINDINGS OF THE STUDY BASED ON OBJECTIVES AND HYPOTHESES:

(A) The objective 01 (To understand the difference between auditing and forensic accounting to reduce and prevent fraud) focuses to enquire view of respondents about difference between the auditing and forensic accounting. Here, to compare two types of accounting procedures researcher taken opinion of respondents considering different characteristics of these accounting procedures on five point agreement scale.

Following are the findings:

1. Out of total 300 respondents from all three industries together 198 supported agreeing the statement that Forensic accountant has better accounting skill, investigative and analytical skills to identify fraud than traditional auditor. 57 % from Banking 60% from Insurance sector and 79% from IT sectors supported this statement.

2. Out of total 300 respondents from all three industries together 192 supported agreeing the statement that Forensic accounting has better control on all possible fraud and mismanagement than traditional audit.64 % from Banking 49% from Insurance sector and 80% from IT sectors supported this statement.

3. Out of total 300 respondents from all three industries together 186 supported agreeing the statement that the Accounting policy prepared by the experts help in identifying possible fraud.65 % from Banking 42% from Insurance sector and 75% from IT sectors supported this statement.

4. Out of total 300 respondents from all three industries together 201 supported agreeing the statement that the Risk calculation helps the professional to specifically locate frauds.65 % from Banking 54% from Insurance sector and 80% from IT sectors supported this statement.

5. Out of total 300 respondents from all three industries together 216 supported agreeing the statement that the Methodology applies in Forensic accounting and audit is different.75 % from Banking 60% from Insurance sector and 80% from IT sectors supported this statement.

6. Out of total 300 respondents from all three industries together 234 supported agreeing the statement that the Forensic accounting is stronger than audit to control fraud. 71 % from
Banking 75% from Insurance sector and 85% from IT sectors supported this statement.

7. Out of total 300 respondents from all three industries together 195 agreeing the statement that the Forensic accounting engagement can be specifically tailored to deter fraud and potentially prevent it what audit fails to do. 69 % from Banking 57% from Insurance sector and 68% from IT sectors supported this statement.

8. Out of total 300 respondents from all three industries together 222 supported (either agreed or strongly agreed) the statement that the Investigation report under forensic accounting is the good evidence and accepted under court of law. 60 % from Banking 72% from Insurance sector and 89% from IT sectors supported this statement.

9. Out of total 300 respondents from all three industries together 192 supported agreeing the statement that the experts take more involvement and have different approach in verifying the books of accounts. 59% from Banking 51% from Insurance sector and 80% from IT sectors supported this statement.

10. Out of total 300 respondents from all three industries together 192 supported (either agreed or strongly agreed) the statement that the Forensic accounting is more dynamic than Audit. 41 % from Banking 68% from Insurance sector and 80% from IT sectors supported this statement.

To understand the difference between auditing and forensic accounting Survey is conducted by Charles Davis, Ramon Farrell, Suzanne Ogilby FVS Section (AICPA) (2009): “Characteristic and Quality of an Expert Accountant: The organization expects more quality, knowledge both on accounting and legal when compared to external auditor. The author surveyed professionals and academics: 126 Attorneys, 603 CPA and 50 accounting professional. Overall results suggest that presence, Professional accountant have more analyzing skill as compare to explanatory and combination skills.

Hence on this basis of above mentioned findings, it is revealed that majority of the respondents’ preferred forensic accounting as compare to auditing. Statements expressing different characteristics used for comparison, majority of the respondents (more than 65%) either agreed or strongly agreed with statements.
Related to above objective first hypothesis (An Forensic accounting has no significant effects in reduction and prevention in frauds as compare to auditing) was framed. One sample ‘t’ test was used for testing null hypothesis. The details of the results are given in the following:

<table>
<thead>
<tr>
<th>PARTICULARS</th>
<th>Mean score</th>
<th>Sample size</th>
<th>Degree of freedom</th>
<th>Calculated ‘t’ value(1-tailed, upper)</th>
<th>Significant P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesized scores for Forensic accounting helping in reduction and prevention in frauds as compare to auditing.</td>
<td>$\mu_0 = 3.50$</td>
<td>n = 300</td>
<td>d.f. = 299</td>
<td>$t = 3.74$</td>
<td>$p = 0.0001$</td>
</tr>
<tr>
<td>Observed Mean rating scores for Forensic accounting helping in reduction and prevention in frauds as compare to auditing.</td>
<td>$\mu_1 = 3.69$</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Critical $t$ values:
1. At 5% level of significance the corresponding value $t$ with d.f.299 is 1.645.
2. At 1% level of significance the corresponding value $t$ with d.f.299 is 2.326.

It is observed that ‘t’ value for null hypothesis is 3.74 which is greater than + 1.645 (also greater than + 2.326). Also $p$ value is 0.0001 which is less than 0.01. **Hence we reject null hypothesis at 5% & 1% level of significance.**

This clearly indicates that (An Forensic accounting has significant effects in reduction and prevention in frauds as compare to auditing) forensic accounting is better than traditional auditing.

(B) The objectives 2 (To study and understand techniques of forensic accounting and its application to examine fraud) focus on the techniques and tool used by an expert accountant to identified the fraud in the organization. As the technology is changing it is essential that new software and training to be provided to them so that they can fight against the fraud.

Following are the findings:

1. Out of total 300 respondents from all three industries together 204 supported agreeing the statement that Benford Law Techniques is to determine whether elements cover the case of actual fraud or it is an error .60% of Banking Sector, 63% of Insurance Sector and 81% IT
sector supported this statement.

2. Out of total 300 respondents from all three industries together 192 supported agreeing the statement that all big data when compare to previous years shows that unusual transactions and hence here relative size factors helps to understand that whether the data are manipulated or its an effect or unintentional error. 78% from IT sector, 66% from Insurance sector and almost 48% from banking sectors supported this statement.

3. Out of total 300 respondents from all three industries together 222 supported agreeing the statement that Testing details of transactions and balances will examine fraud. 62% of Banking Sector, 75% of Insurance Sector and 83% IT sector supported this statement.

4. Out of total 300 respondents from all three industries together 195 supported agreeing the statement that the computer based application like testing data system will examine fraud. 66% of Banking Sector, 60% of Insurance Sector and 69% IT sector supported this statement.

5. Out of total 300 respondents from all three industries together 228 supported agreeing the statement that Redoing calculations performed by accounting system will help to examine fraud. 62% of Banking Sector, 75% of Insurance Sector and 81% IT sector supported this statement.

6. Out of total 300 respondents from all three industries together 192 supported agreeing the statement that Data mining one of the application helps in layout of spontaneously finding and hunting exceptional and unusual transaction from big data of the organization. 66% of Banking Sector, 69% of Insurance Sector and 57% IT sector supported this statement.

7. Out of total 300 respondents from all three industries together 195 supported agreeing the statement that Ratio analysis on financial condition of a company and hence keep examine the fraud. 60% of Banking Sector, 69% of Insurance Sector and 66% IT sector supported this statement.

8. Out of total 300 respondents from all three industries together 219 supported agreeing the
statement that Ratio analysis reports plays important role to alert and prevent all occurring fraud in the organization. 69% of Banking Sector, 72% of Insurance Sector and 78% IT sector supported this statement.

9. Out of total 300 respondents from all three industries together 252 supported agreeing the statement that Timelines Analysis helps in examines fraud. 78% of Banking Sector, 90% of Insurance Sector and 84% IT sector supported this statement.

10. Out of total 300 respondents from all three industries together 216 supported agreeing the statement that Genogram Analysis helps in examines fraud. 63% of Banking Sector, 75% of Insurance Sector and 78% IT sector supported this statement.

A report based on India fraud survey 2012 by ERNST & YOUNG, According to more than three fourth respondents, the incidence of fraud has increased in the country. However these frauds are unearthed because 93% of survey agree on Internal Auditing, 91% on External audit, 90% of Code of Conduct, 71% by Third party due diligence, 69% Whistle blower Mechanism, 67% Ethical Training and 59% on Proactive fund risk management (Software and IT based Tools).

Hence on the basis of above finding it is revealed that techniques of forensic accounting and its application helps in examine fraud.

Related to above objective Second hypothesis *(The techniques of forensic accounting and its application will not significantly examine the fraud)* was formulated. One sample ‘t’ test was used for testing null hypothesis. The results are in the following:

<table>
<thead>
<tr>
<th>PARTICULARS</th>
<th>Mean score</th>
<th>Sample size</th>
<th>Degree of freedom</th>
<th>Calculated ‘t’ value(1- tailed, upper)</th>
<th>Significant P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesized scores for the techniques of forensic accounting and its application will examine the fraud.</td>
<td>$\mu_0 = 3.50$</td>
<td>300</td>
<td>d.f. = 299</td>
<td>t = 5.16</td>
<td>p = 0.000</td>
</tr>
<tr>
<td>Observed Mean rating scores for the techniques of forensic accounting and its application will examine the fraud.</td>
<td>$\mu_1 = 3.80$</td>
<td>d.f. = 299</td>
<td>t = 5.16</td>
<td>p = 0.000</td>
<td></td>
</tr>
</tbody>
</table>
Critical t values:
1. At 5% level of significance the corresponding value t with d.f.299 is 1.645.
2. At 1% level of significance the corresponding value t with d.f.299 is 2.326.

From the table it is inferred that ‘t’ value for null hypothesis is 5.16 which is greater than +1.645 (also greater than +2.326). Also p value is 0.000 which is less than 0.01. Hence we reject null hypothesis at 5% & 1% level of significance.

This clearly indicates that, “The techniques of forensic accounting and its application will significantly examine fraud”.

(C) The Objective 3 (To study the various method used by forensic accountant to prevent occupational fraud) focuses on Understand various method used by forensic accountant to prevent occupational fraud.

Following are the finding:

1. Out of total 300 respondents from all three industries together 210 supported agreeing the statement that Occupational fraud is a significant threat to all organizations. 72% of Banking Sector, 57% of Insurance Sector and 81% IT sector supported this statement.

2. Out of total 300 respondents from all three industries together 225 supported agreeing the statement that Fake billing can cause damage to the organization. 63% of Banking Sector, 75% of Insurance Sector and 87% IT sector supported this statement.

3. Out of total 300 respondents from all three industries together 237 supported agreeing the statement that Forensic accounting identifies those areas where the occupational fraud is susceptible to fraud. 72% of Banking Sector, 84% of Insurance Sector and 81% IT sector supported this statement.

4. Out of total 300 respondents from all three industries together 210 supported agreeing the statement that Background check of employee at the time of recruitment will filter the bad applicant and prevent fraud. 72% of Banking Sector, 66% of Insurance Sector and 72% IT sector
supported this statement.

5. Out of total 300 respondents from all three industries together 207 supported agreeing the statement that Employee working with the close association with their vendor give a signal to have more chances of fraud. 56% of Banking Sector, 66% of Insurance Sector and 87% IT sector supported this statement.

6. Out of total 300 respondents from all three industries together 235 supported agreeing statement that Forensic accountant services can prevent identifies and reduces occupational fraud. 69% of Banking Sector, 76% of Insurance Sector and 81% IT sector supported this statement.

7. Out of total 300 respondents from all three industries together 213 supported agreeing the statement that Reporting from other employee will reduce the occupational fraud. 66% of Banking Sector, 75% of Insurance Sector and 72% IT sector supported this statement.

8. Out of total 300 respondents from all three industries together 225 supported agreeing the statement that Implementation of Internal controls and Internal check will help in prevent occupational fraud. 65% of Banking Sector, 75% of Insurance Sector and 75% IT sector supported this statement.

9. Out of total 300 respondents from all three industries together 280 supported agreeing the statement that Documentation of the record properly will reduce Occupational fraud. 45% of Banking Sector, 69% of Insurance Sector and 66% IT sector supports this statement.

10. Out of total 300 respondents from all three industries together 289 supported agreeing the statement that Monitoring Vacation Balances will help to reduce Occupational fraud. 66% of Banking Sector, 60% of Insurance Sector and 63% IT sector supported this statement.

Survey was conducted to find out the effect of occupational fraud on the organization. This survey was done in the year 2002.
The report highlighted that there was nearly 700 cases registered for occupational fraud. It has cost a huge loss to the organization. The report also found reason of these frauds. Mainly the value of these fraud, damage caused, the procedure used to do these frauds and the person who engaged them self in this fraud. Employee need to be motivated and trained enough to fight against these fraud.

Hence on the basis of above analysis it is revealed that that Occupational fraud can be controlled and prevented with the various method used by forensic accountant

Related to above objective Third hypothesis (Occupational frauds cannot be significantly controlled and reduce with the help of forensic accounting) is formulated. One sample nonparametric sign test was used for testing null hypothesis.

The details of the results are given below:

<table>
<thead>
<tr>
<th>PARTICULARS</th>
<th>Mean score</th>
<th>Sample size</th>
<th>Calculated ‘z’ value (1-tailed, upper)</th>
<th>Significant P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesized scores for Occupational frauds can be controlled and reduce with the help of forensic accounting.</td>
<td>( \mu_0 = 3.5 )</td>
<td>n= 216</td>
<td>( z = 5.18 )</td>
<td>( p =0.000 )</td>
</tr>
<tr>
<td>Observed median rating scores for Occupational frauds can be controlled and reduce with the help of forensic accounting.</td>
<td>( M= 3.8 )</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Critical z values:**
1. At 5% level of significance the corresponding \( z \) value is 1.645.
2. At 1% level of significance the corresponding \( z \) value is 2.326.

From the above table it is inferred that ‘z’ value for null hypothesis is 5.18 which is greater than +1.645 (also greater than +2.326). Also \( p \) value is 0.00which is less than 0.01. Hence we reject null hypothesis at 5% & 1% level of significance. Thus it is concluded that “Occupational fraud can be significantly controlled and reduce with the help of forensic accounting”.

This clearly indicates that various methods used by forensic accountant to prevent occupational fraud.
(D) The objective 4 (To study various computer forensic techniques so as to prevent and reduce technological fraud) focuses on understand various computer forensic techniques so as to prevent and reduce technological fraud, researcher taken opinion of respondents considering different characteristics.

Following are the findings:

1. Out of total 300 respondents from all three industries together 222 supported agreeing the statement that Economy suffers from Technological fraud. 75% from Banking Sector, 78% from Insurance sector and 69% from IT sector supported this statement.

2. Out of total 300 respondents from all three industries together 213 supported agreeing the statement that using Active Data Add in will identify the fraud. 60% from Banking Sector, 81% from Insurance sector and 70% from IT sector supported this statement.

3. Out of total 300 respondents from all three industries together 189 supported agreeing the statement that Chip Technology will help to prevent the technological fraud. 54% from Banking Sector, 69% from Insurance sector and 65% from IT sector supported this statement.

4. Out of total 300 respondents from all three industries together 225 supported agreeing the statement that Encryption prevent the technological fraud. 67% from Banking Sector, 84% from Insurance sector and 74% from IT sector supported this statement.

5. Out of total 300 respondents from all three industries together 231 supported agreeing the statement that Tokenization prevents the technological fraud. 69% from Banking Sector, 84% from Insurance sector and 76% from IT sector supported this statement.

6. Out of total 300 respondents from all three industries together 240 supported agreeing the statement that Hot pepper technology (Email detective) prevents fraud. 60% from Banking Sector, 88% from Insurance sector and 91% from IT sector supported this statement.

7. Out of total 300 respondents from all three industries together 216 supported agreeing the statement that Belka Soft (Evidence Centre) prevents fraud. 60% from Banking Sector, 79% from Insurance sector and 77% from IT sector supported this statement.
8. Out of total 300 respondents from all three industries together 240 supported agreeing the statement that Passware Soft prevents fraud. 75% from Banking Sector, 90% from Insurance sector and 74% from IT sector supported this statement.

9. Out of total 300 respondents from all three industries together 225 supported agreeing the statement that Dynamic Interconnection Software prevents fraud. 78% from Banking Sector, 78% from Insurance sector and 68% from IT sector supported this statement.

10. Out of total 300 respondents from all three industries together 216 supported agreeing the statement that Forensic Write Blocker (Ready only access) prevent fraud. 69% from Banking Sector, 73% from Insurance sector and 74% from IT sector supported this statement.

As per the study done on September 2014 on fraud based on technology, it was attended by most of insurance company and shared their view and information related to technology fraud. As transaction happening around the world are based on internet are found more risky. Further advancement in the technology has also result in advancement of methodology of fraud. Even industry like Insurance are badly affected due to this fraud. The study was conducted keeping in view of Insurance industry. They observed that due to change in procedure of premium payment and claim settlement there is an increase in the fraud using the technology.

Hence it is revealed from the above analysis that various computer forensic techniques help in reducing and prevention of fraud.

Related to above objective Fourth hypothesis (Various Computer forensic techniques will not significantly help in reducing and preventing the fraud) is formulated one sample ‘t’ test for testing null hypothesis. The details of result are given below:

<table>
<thead>
<tr>
<th>PARTICULARS</th>
<th>Mean score</th>
<th>Sample size</th>
<th>Degree of freedom</th>
<th>Calculated ‘t’ value(1- tailed, upper )</th>
<th>Significant P value</th>
</tr>
</thead>
</table>
Hypothesized scores for Various Computer forensic techniques will help in reducing and preventing the fraud. 

\[ \mu_0 = 3.50 \]

<table>
<thead>
<tr>
<th>n= 300</th>
<th>d.f. = 299</th>
<th>t = 7.18</th>
<th>p = 0.000</th>
</tr>
</thead>
</table>

Observed Mean rating scores for Various Computer forensic techniques will help in reducing and preventing the fraud. 

\[ \mu_1 = 3.87 \]

**Critical t values:**
1. At 5% level of significance the corresponding value \( t \) with d.f. 299 is 1.645.
2. At 1% level of significance the corresponding value \( t \) with d.f. 299 is 2.326.

From the table it is inferred that ‘\( t \)’ value for null hypothesis is 7.18 which is greater than + 1.645 (also greater than + 2.326). Also p value is 0.000 which is less than 0.01. Hence we reject null hypothesis at 5% & 1% level of significance. Thus it is concluded that “Various Computer forensic techniques will significantly help in reducing and preventing fraud”.

This clearly indicates that computer forensic techniques so as to prevent and reduce technological fraud.

### 6.3 CONCLUSIONS OF THE STUDY

From the above analysis done and the observation we can conclude the following:

1. Forensic accounting has significant effects in reduction and prevention in frauds as compare to auditing.
2. The techniques of forensic accounting and its application will significantly examine the fraud.
3. Occupational fraud can be significantly controlled and reduce with the help of forensic accounting.
4. Various Computer forensic techniques will significantly help in reducing and preventing fraud.
6.4 SUGGESTIONS

A. Suggestion for the Top management of the Companies:

1. Forensic accountant services should be used such as Investigation and Litigation services to identify and prevent fraud.
2. Forensic accounting techniques should be applied to detect fraud and to build strong accounting internal control.
3. Regularly accounting policy should be reviewed and risk assessment should be done to prevent fraud.
4. Avoid cash transaction and encouraged other direct and online payment system to avoid cash fraud.
5. The Work allocation of the employee should be rotated on regular basis and no employee should be allotted one department for a longer time.
6. CCTV camera should be placed in industries to monitor and control activity.
7. Employee should be motivated to give tip for any fraud they see within industries so that occupational fraud can be control.
8. Recruitment process should be reviewed by forensic accountant so that occupational fraud could be minimized.
9. Computer forensic should be used to prevent technological fraud.
10. Software should be regularly updated with new version so that system can be protected with the viruses and other internet related fraud.
11. Hardware system and daily data back should be protected from the unauthorized access so that data loss can be prevented and confidence can be generated on stakeholder.
12. Top management should have open door policy to interact with the middle and lower level of management periodically. Suggestion box should be kept so that employee can share their view without disclosing their identity. This is will help to reduce fraud in the organization.
13. SAP or ERP systems should be used for integration of all processes in an organization for prevention of fraud as various reports can be retrieve from the system.
B. Suggestion for Institute and University:

1. To introduce new Curriculum in Forensic accounting at the degree as well as the post graduate college level especially for Commerce stream.
2. Advance learner certification course should be introduced as Certified Forensic accountant, so that student can become professional consultant after undergoing this Certificate Course.
3. Awareness should be created among school and College Students regarding precautions from Internet.
4. SAP/ ERP systems’ training should be provided to students to understand unique system of internal control.

C. Suggestion for Government:

1. Awareness should be created for precaution and use of Internet to the people.
2. To bane pirated software used to detect frauds as such software fails to detect frauds.
3. A subsidy should be given to companies which effort on the research and development part of fraud prevention software to meet new frauds.
4. Awareness should be created among the people regarding different kinds of frauds taking place in the society.
5. As fraud is mainly done with the help of technology, there is more need of cyber experts who can detects and prevent fraud.
6. Regulatory body should be created separately to control Ecommerce and Social networking site and hence large level fraud can be controlled.
7. Regularly education companion regarding prevention techniques against frauds should be arranged through social media, newspaper, and advertisement.
8. Government companies should use ERP/ SAP software for their daily accounting. As this software can be monitored and controlled at higher level.
9. Online transaction should be given more preference so that fraud can be minimized at all level.