FORENSIC ACCOUNTING AND FRAUD INVESTIGATION: AN EMPIRICAL STUDY FROM MAURITIUS

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Abstract: This research evaluates the awareness of forensic accounting in Mauritius and the behaviour of three different types of companies, accounting and auditing firms, multinational companies and local companies with respect to forensic accounting. A survey was carried out and distributed among these stated types of companies. Out of the 100 questionnaires distributed, 54 responses were collected, amounting to a response rate of 54%. The responses were collected and processed using SPSS and the results show that 5 out of 8 questions relative to awareness of forensic accounting are significant with gender and 3 out of 8 questions related to awareness of forensic accounting is significant with the variable type of company.

Keywords: Forensic Accounting, SPSS 23, Chi-Square test

I. INTRODUCTION

In the financial sector, the root causes of all problems is an inefficient and poor corporate governance and a strong corporate governance is sine qua non for the smooth running of an organization. As per Ramaswamy (2005), fraud cases are due to poor corporate governance as it is more likely that a fraud may be committed. The absence of well-established accounting policies within an organization further weakens the corporate reporting system and it is the responsibility of the auditor to discover frauds committed and access the transparency of financial reports provided by the top management. Bhasin (2016) investigated the rise of forensic accounting due to widespread financial frauds and identified the main duties (auditing, accounting, and investigative) of a forensic accountant in dealing with frauds. As such forensic accountants make valuable additions to corporate governance by creating a conducive working environment leading to fraud prevention, investigation of dubious cases and effective communication. (Bhasin, 2013) Grubo, Ristić & Simeunović (2013) identified a forensic accountant as an accountant who possesses accounting, auditing and forensic abilities to deal with fraudulent cases. On certain occasions, the forensic accountant may provide additional expert support, advice and proofs on an existing hearing at court and may thus be termed as a litigation accountant. Thus the work of a forensic accountant is essential to encourage corporate governance in Mauritius and thus the views of existing auditors working in Multinational firms, local firms and governmental organizations must be processed and analysed to identify the cognizance of forensic accounting in Mauritius.

Aims and objectives of the study
The main of this research are as follows:

a. To evaluate awareness of forensic accounting in Mauritius.

b. To evaluate the behaviour of different types of companies with respect to forensic accounting.

II. LITERATURE REVIEW

Apostolou, Hassell, and Webber (2000) identified forensic accounting as the use of accounting, auditing and investigative abilities to provide expert support in legal matters. Forensic accounting is a branch of accounting which deals with present, existing or projected disputes and it is therefore suitable for legal assessment and provides a guarantee. Dhar and Sarkar (2010) define forensic accounting as the utilization of the concepts of accounting and its definitions in dealing with legal issues. An audited report of the fraud committed is written and this report may be submitted to court as an evidence for consequent constitutional review. Koh, Arokiasamy and Suat (2009) depicted Forensic Bookkeeping as applying Accounting, Financial, Auditing and Investigative concepts to fraud related issues. The aim of financial accounting is to recognize and audit fraudulent exchanges and in particular to identify the genuine motive of the culprit. Forensic accounting is a type of accounting that is suitable for legal assessment and provides utmost guarantee. Manning (2012) defined forensic accounting as the art of assembling and exhibiting financial data in a form that will be acknowledged by a court of jurisprudence against culprits of monetary violations. From the point of view of the prosecutor, forensic accounting is concerned with collecting, understanding, compacting and displaying intricate financial matters in a clear, precise and accurate way. (Howard and Sheetz, 2006; Stanbury and Paley-Menzies, 2010) Koh, Arokiasamy and Suat (2009) studied forensic accounting and public awareness towards fraud detection in Malaysia. This study has concentrated on people’s awareness, understanding and acceptance on the role of forensic accounting in Malaysia. The
authors found that unobserved loopholes for accounting is because of the fact that Malaysian organisation are novice and inexperienced in doing business. The significance of forensic accounting in Malaysia is an instrument utilised by the Government office and the Malaysian Anti-Corruption Commission, to examine on the possibility of fraud extortion event and even organizations asserted of leading unlawful or criminal exercises. It has additionally been practiced by auditing firms as one of the instrument to explore an organization’s monetary explanation for fake exercises as asked for by specific companies and this does not imply that the society ought to be insensible towards this administration and its function. The public’s opinion about forensic accounting also plays a vital role in shaping the prospect of forensic accounting in Malaysia. Further the study talks about the acknowledgment level by people in general with the act of forensic accounting as the fundamental device in researching organisation’s record to recognise fraud in Malaysia. The author concluded that forensic accounting exercises, for instance investigative activities and litigation support are basic for a wide range of organisations for their long term survival that will eventually improve their hierarchical performance. Additionally they have urged that all companies must put in practice forensic accounting as a device to improve transparency, credibility and accountability.

Islam, Hossan and Rahman (2011) identified that forensic accounting involves the use of expert thinking and specific abilities to obtain evidence of past economic dealings and that it is widely used in the UK, USA, Canada and Australia. However, the concept and practice of forensic accounting is more or less unknown in developing countries such as Bangladesh. Expert opinions suggest that apart from some multinationals, forensic accounting has not been practiced in the past in Bangladesh. Forensic accounting is a relevant fraud identification method and is adequate for combating corruption and frauds in Bangladesh. Forensic accounting proves to be a strategic and dynamic tool in dealing with and managing all sorts of frauds and condemn the practice of creative accounting in Bangladesh. The study recommended for restructuring and running some accounting courses relative to forensic accounting to raise the awareness of its concept and application to fraud detection as well as organizing seminars and workshops to increase the knowledge of corporates with respect to forensic accounting and fraud detection.

Modugu & Anyaduba (2013) investigated the financial frauds and forensic accounting in Nigeria and whether or not the views of main stakeholders are similar regarding the efficiency of forensic accounting in dealing with fraud control, aiding in financial reporting and improving internal control quality. A survey was circulated among 143 accountants, top management staff, practicing auditors and shareholders and binomial test was utilized to analyse the collected data. The results show that there is a significant agreement in between stakeholders regarding the efficiency of forensic accounting in dealing with frauds, financial reporting and internal control quality. Therefore, this paper recommends that the Chartered Accountants of Nigeria, Association of National Accountants of Nigeria and the National Universities Commission motivate people to learn about fraud detection and forensic accounting and train specialists in the field of forensic accounting. The government should also set up a policy for monitoring and investigating fraudulent cases.

**Demand for Forensic Accountants**

McMullen and Sanchez (2010) stated that forensic accounting is a modern evolution of accounting that was brought due to the accounting and auditing scandal in the late 1990s and mid 2000s conveyed thoughtfulness regarding the demolition that financial fraud can bring, more precisely the scandal at Enron and WorldCom, the downfall of Arthur Andersen, the fall of investments banks, and the section of the Sarbanes-Oxley Act that added to a growing attention of financial fraud. Tysiac (2012) investigated on the demand of forensic accountant in the wake of financial crisis in which he specified that financial crisis crushed numerous enterprises yet kept on creating chances for firms and experts in forensic accounting. The demand of Forensic accountant will increase with an incline in financial regulation and as per the author it was predicted that income in forensic accounting services in Unites States will eventually grow from $ 4.3 billion in 2012 to $6.0 billion in 2017 depicting a growth of 6.0 % per annum. Seda and Kramer (2014) examined the demand of forensic accountant in United States and the author concluded that the demand for forensic accountant will increase in the future.

**Core knowledge and personal skills of a forensic accountant**

A Forensic accountant is required to be an "expert" in accounting and financial frameworks. However, as organizations keep on growing in size and become more intricate, revealing extortion requires a forensic accountant to be “capable” in a wide range of expert abilities and skills. The following statement highlights the expertise that a forensic accountant should possess.

- A forensic accountant should be expert in dealing with financial statements and be able to review them and track back the transactions completed. This is a very important skill of the forensic accountant as it aids them in discovering anomalies in transactions.
• They must possess enough knowledge and expertise to deal with frauds and should be aware of all previous cases of frauds relative to asset misappropriations, bribery, corruption and money laundering.
• The capacity to comprehend the functioning of the inside control frameworks of organizations, and be able to set up a control framework that evaluates risks, fulfill the objectives of the management, review the nature of the program so that required amendments can be made and train employees of their control duties.
• The forensic accountant must possess computing skills to help them in dealing with e-banking transactions and computerized accounting system.
• To know the basic functioning of the human brain and psychology such that he is able to know the motives behind criminal behavior and set up preventive strategies accordingly.
• Interpersonal and relational abilities, which help in providing information about the organization’s moral policies and help forensic accountants to lead meetings and obtain much needed data.
• Thorough knowledge of organization’s governance policies and the laws that relate to these policies.

These skills help the forensic accountant in ameliorating the corporate governance systems, the efficiency of internal auditing systems and deal with financial frauds.

Bhasin (2013) conducted a review of the suitable skills that are required by forensic accountant in three major leading States of the national capital region (NCR) of India for the year 2011 and 2012. The latter found that accounting frauds and scandals are persistently happening in nations around the globe and influenced numerous companies, irrespective of their size, area and industry.

Companies and regulatory bodies are attempting their best to investigate and rectify existing imperfections in their reporting framework. The result from the survey was that “core skills are not enough requirements for Forensic Accountants, there are significant differences in the relevant skills of Forensic Accountants, as given by previous researchers with the current research, and the necessary skills of Forensic Accountants, as identified by both academics and professionals, will hopefully meet employers’ expectations too”. Further Gray (2008) carried out a study on accounting and auditing firm and portrayed forensic accountants as an integration of an auditor and private agents who needs information and aptitudes, for instance, the investigating abilities, research, law, quantitative techniques, finance, evaluating, accounting and law enforcement officer insights.

III. METHODOLOGY

This section will demonstrate the strategies that were utilized to conduct the research such as the research design, sample size and data collection. To gather primary data a questionnaire was designed that comprised of three sections: awareness of forensic accounting, characteristics of a forensic accounting and the demographic and was eventually to companies through online surveys. A sample size of 54 respondent were taken into consideration that were derived from these three types of companies; accounting and auditing firm, multinational companies and local companies.

IV. ANALYSIS

Reliability statistics
Cronbach alpha can be used to test the level of consistency and the reliability of a dataset (Tavakol and Dennick, 2011). The questions from the questionnaire were distributed in to two groups according to the type of questions to perform the reliability tests. Group 1 consists of yes-no questions, while group 2 consists of Likert scale based questions. Pallant (2001) stated that for a data to be reliable, the Cronbach alpha must have a value of at least 0.7 but low values of Cronbach alpha (0.5) may be due to small scales of fewer than 10 items. In this case, due to a reduced number of items in the scale, the alpha values of 0.522 and 0.588 can be assumed to be reliable.

<table>
<thead>
<tr>
<th>Group</th>
<th>Cronbach’s alpha</th>
<th>Number of items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>0.522</td>
<td>8</td>
</tr>
<tr>
<td>Group 2</td>
<td>0.588</td>
<td>6</td>
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Descriptive Statistics for characteristic of a forensic accountant

The following questions were used to conduct the descriptive statistics:

1. Forensic accounting helps to prevent fraud in an organisation
2. Forensic accounting helps in creating or improving a positive working environment
3. Forensic accounting helps in an effective communication between top management and staff
4. Forensic accounting helps in evaluating existing policies in an organisation
5. Forensic accounting ensures that there is punishment in case of frauds
6. Forensic accounting helps in conserving the financial integrity of the organisation
The descriptive statistics shows the respondents’ views on the main characteristics of forensic accounting. It can be noted that the vast majority of respondents (44.4%) were Neutral and 29.6% disagreed with the idea that forensic accounting helps to prevent fraud in an organization. The respondents shared mixed opinions on the statement that forensic accounting helps in creating or improving a positive working environment (Disagree 37%, Neutral 35.2%, Agree 20.4%). Respondents were mostly Neutral (32.6%) and some also Agreed (33.3%) with the fact that forensic accounting helps in an effective communication between top management and staff. The responses with respect to the fact that forensic accounting helps in evaluating existing policies in an organization were very much balanced with 38.9% disagreeing with this statement while 33.3% agreed. Most of the respondents (33.3%) agreed and 22.2% strongly agreed with the idea that forensic accounting ensures that there is punishment in case of frauds, while others were in disagreement (20.4%) with this statement. The participants were very much neutral (38.9%) and in agreement (25.9%) with the statement that forensic accounting helps in conserving the financial integrity of an organization.

### Chi-square statistics

A chi-square test was performed to test the relationship between the different questions concerning the awareness of forensic accounting and gender of the respondents.

<table>
<thead>
<tr>
<th>Question</th>
<th>Chi-square</th>
<th>df</th>
<th>Asymp sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1 Are you aware of Forensic Accounting?</td>
<td>6.480</td>
<td>2</td>
<td>0.011</td>
</tr>
<tr>
<td>Q2 Have you previously use the concept of forensic accounting in fraud and corruption detection?</td>
<td>3.601</td>
<td>1</td>
<td>0.058</td>
</tr>
<tr>
<td>Q3 Do you consider forensic accounting as a fraud detection tool?</td>
<td>10.808</td>
<td>1</td>
<td>0.001</td>
</tr>
<tr>
<td>Q4 Do you use any control method other than forensic accounting for fraud detection?</td>
<td>3.678</td>
<td>1</td>
<td>0.055</td>
</tr>
<tr>
<td>Q5 According to you does forensic accounting affect external auditing?</td>
<td>5.967</td>
<td>1</td>
<td>0.015</td>
</tr>
<tr>
<td>Q6 Do you believe that forensic accounting is the only method to detect transactions that are doubtful?</td>
<td>10.873</td>
<td>1</td>
<td>0.001</td>
</tr>
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</table>

The results show that there is a significant relationship between Q1 and gender \( \chi^2 (1) = 6.480, p = 0.011 \). There is a positive association between Q3 and gender \( \chi^2 (1) = 10.808, p = 0.001 \). There is a positive and significant relationship between Q5 and gender \( \chi^2 (1) = 5.967, p = 0.015 \). There exists a positive significance between Q6 and gender \( \chi^2 (1) = 10.873, p = 0.001 \). There is a positive correlation between Q8 and gender \( \chi^2 (1) = 11.573, p = 0.001 \). A chi-square test was used to evaluate the relationship between awareness of forensic accounting and the type of company. The type of company was divided into three main group-accounting and auditing firm, multinational companies and Local companies.

<table>
<thead>
<tr>
<th>Question</th>
<th>Chi-square</th>
<th>df</th>
<th>Asymp sig.</th>
</tr>
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<tr>
<td>Q7 Do you consider using forensic accounting as a tool to measure the risk of fraud?</td>
<td>1.885</td>
<td>1</td>
<td>0.170</td>
</tr>
<tr>
<td>Q8 Are you obligated to use forensic accounting in the company?</td>
<td>11.573</td>
<td>1</td>
<td>0.001</td>
</tr>
</tbody>
</table>

It can be seen that there is a significant relationship between Q1 and type of companies \( \chi^2 (2) = 9.206, p = 0.010 \). This may indicate that the level of awareness in forensic accounting differs for each type of company. Q3 is positively associated with the type of company \( \chi^2 (2) = 6.650, p = 0.036 \). This shows that different company have different policies regarding...
This shows that individuals from different companies share different views on the effect of forensic accounting on external auditing.

CONCLUSION

This research was carried out to evaluate the awareness of forensic accounting in Mauritius and the behaviour of different types of companies with respect to forensic accounting and it can be concluded that the majority of the studied variables were positively related to awareness of forensic accounting. This study was conducted to investigate the awareness of forensic accounting among accounting and auditing firms, multinational companies and local companies from Mauritius. This study has used data obtained from a questionnaire circulated among 100 accounting, auditing, multinational and local firms in Mauritius. 54 responses were collected and their data were analysed by using SPSS 23. This study provides more insight in understanding the presence of forensic accounting among accounting and auditing, multinational and local companies in Mauritius. A chi-square test was carried out in SPSS to evaluate the relationship between the demographic variables gender and types of companies and the questions pertaining to the general awareness of forensic accounting. The results of the empirical study shows that 5 out of 8 questions relative to awareness of forensic accounting are significant with the variable type of company.

POLICY RECOMMENDATION

From the study, it can be found that forensic accounting must be introduced as a compulsory tool in dealing with financial fraud and corruption in the three stated type of companies to promote corporate governance. The practice and development of forensic accounting are fairly low in existing companies in Mauritius and thus the government should encourage the practice of forensic accounting by providing adequate training and resources to forensic accountants such that they become an expert in their particular field of expertise and develop new courses related to forensic accounting.

REFERENCES