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EFFICACY OF FORENSIC ACCOUNTING IN CURBING CORRUPTION AND FINANCIAL FRAUD: A SCRUTINY OF CASE STUDIES FROM ASIA AND AFRICA

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Abstract

Corruption and Financial fraud collectively swindle economies of over $ 8.3 trillion a year, the opportunity cost of which is paid financially and socially at the expense of people's incomes and quality of life. In light of this jarring statistic, measures to counteract this grave felony are being implemented, where leading at the front of the battle is Forensic Accounting.

This paper examines the efficacy of previous efforts exerted by forensic accounting against corruption and frauds in a more global context. It is a comparison and evaluation of successes across nations in Asia and Africa, carefully selected for their geographical location and poor transparency in corruption for a global comparison. Deeper examination and a thorough reading of past records proves with evidence the assumption that Forensic Accounting indeed aids to detect and reduce the incidence of Corruption and Financial Fraud.

Keywords: Forensic Accounting, Financial Fraud, Corruption.

INTRODUCTION

In most developing countries, fraud and corruption is socially considered a way of life, a menace which cannot be eradicated.

As per the World Bank, Corruption is the 'abuse of public power for private benefit'[1]; it involves a variety of unscrupulous practices including embezzlement, nepotism, cronyism, under the table donations, kickbacks and a wide variety of frauds.

Privilege	Preference	Payment	Power
Cheating	Procurement	Laundering	Fraud
Theft	Trading	Bribery	Embezzlement
Disruption	Cronyism	Graft	Malfeasance
Ineptitude	Nepotism	Swindling	Influence
Falsification	Discrimination	Extortion	Harassment
Immunity	Favoritism	Kickbacks	Suppression
Evasion	Exclusion	Skimming	Protection

Table 1 Types of corruption. No name. "Types of corruption." "Corruptioncontrol.com" http://www.corruptioncontrol.com/Types_of_Corruption.html (accessed Jun. 5, 2022)

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Fraud, proclaimed as the twin brother of corruption is deceptive and cunning in its nature. As per Albrecht; "Fraud is a deception that includes the following elements: a representation about a material point which is false, and intentionally or recklessly so; which is believed and acted upon by the victim, to the victim's damage."[2]

These notorious activities are cause for much concern, on a personal level they exploit the money earned by a hard working individual, on a larger scale they cost nations billions upon billions in a year; not only are losses paid for monetarily but also in the reputation and administrative performance of an organization.

Consequently, these have severely stunted the growth of economies, even causing the collapse of world renowned and massive companies, such as WorldCom and Enron.

Given the dire implications of such malversation, it is imperative for measures to be taken to find a means to an end.

Forensic accounting offers such an opportunity. Forensic Accounting is a specialisation of accounting investigating whether firms partake in financial reporting misconduct.This is best summarised by Crumbley, Heitger, and Stevenson Smith as: "….the action of identifying, recording, settling, extracting, sorting, reporting, and verifying past financial data or other accounting activities for settling current or prospective legal disputes or using such past financial data for projecting future financial data to settle legal disputes."[3]

The high scrutiny of forensic accounting makes it one of the best, if not the most effective countermeasure to corruption and fraud. Having realised the vast potential it holds, the field has gained momentum and continues to grow exponentially, additionally numerous past publications have investigated the viability and potency of forensic accounting(and it's investigative techniques) as a tool to detect and curb corruption and fraud in individual countries or national contexts.

In this paper, the data used to determine the extent of corruption in a particular nation is sourced from the Corruption Perception Index, which collects data from corruption surveys and assessments obtained by reputable institutions. Every country is given is given a score which illustrates it's perceived level of public sector corruption on a scale of 0- 100, where 0 denotes very clean and 100 represents highly corrupted; the rank assigned to a country shows it's position/ condition relative to other countries in the index. All values quoted are from 2021.[4]

The assessment of nations with higher scores depicting relatively severe degrees of malversation are more relevant to the aim of this study. Consequently the countries chosen for probing concentrate themselves in the continents of Asia and Africa.

The four countries inspected are listed as follows: Sudan, Iraq, Kenya, India.

Country	Continent	CPI score/ out of 100	CPI rank/ out of 180
Sudan	Africa	20	154
Iraq	Asia	23	157
Kenya	Africa	30	128
India	Asia	40	85

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Theory

In addition to the context given pertaining to how Forensic accounting, Corruption and Fraud is distinguished, an understanding of various statistical tests and measures is necessary to fully comprehend the depth of the results procured.

They are listed as follows:

α Alpha Cronbach constant: A measure to assess the internal consistency or reliability of a given measurement. This coefficient of reliability α ranges from 0 to 1; completely independent items which are not correlated show α = 0, items with high covariances show values closer to α = 1. Cronbach alpha values of 0.7 or higher usually deem acceptable internal consistency.

τ Kendall correlation: A measure of the rank correlation of two measured quantities. The coefficient τ when high attests that observations are of a similar rank, and low values of τ depict dissimilarity in the rank of the variables.

Analysis of Variance (ANOVA): a collection of statistical measures used to analyse the differences in the mean.

Regression equation: A technique to determine whether a relationship exists between one or more variables or dependency. Further analysis can obtain an estimate of the impact of a change in one variable on another.

R^2 Coefficient of determination: A measure to assess the ability of a model to explain or predict an outcome in a linear regression setting.

Adjusted R^2 is a modified version of R^2 which accounts for the predictors not significant in a regression model.

T test/ Student's t test: An inferential statistic used to determine or compare the difference in the means of two groups.

Student's t distribution: a probability distribution alike the normal distribution distinguished by a bell shape having heavier tails. It is used for small samples sizes with extreme values, or when the standard deviation for the population is unknown or both.

p value: the probability that the result obtained from sample data occurred by chance.

One sample t test: a technique to determine and measure the extent to which the hypothesised/ expected mean value of the variable is different from the observed/ obtained mean value of a continuous variable.

A t value here is the ratio of the difference between the variation within the sample sets and the mean of the two sample sets.

A p value here lesser than 0.05 suggests the observed mean is significantly different than the values hypothesised by researches. A value greater than 0.05 showcases that the observed mean is not substantially different from the value expected by the researchers.

DISCUSSION

As mentioned previously, this paper will assess existing records on the competency of forensic accounting in combatting and curbing corruption and financial fraud. This segment is a literature review of existing investigations of the contribution of forensic accounting to achieve the aim as mentioned previously.

SUDAN, SUB-SAHARAN AFRICA[5]

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SayedAhmed and Elseed (2019) conducted a field study comprising of 50 individuals of varying ages, educational qualifications, scientific backgrounds, professional positions and experience.
The hypothesis read as: 'Forensic accounting methods provide information that helps in reducing the phenomena of financial corruption.'

One of the questions asked was-'Forensic Accountant's investigation of illegal activities helps in reducing the phenomena of financial corruption. To this 26% (13) 'Agreed' and 50% (25) 'Strongly agreed'. 12% (6) said they 'Disagree', while 6% (3) said they 'Strongly disagree'. The rest 6% (3) were neutral.
It had an Alpha Cronbach coefficient of 0.865, a high value such as this affirms the credibility of the data.

IRAQ, MIDDLE EAST AND NORTH AFRICA [6]

Alabdullah, Alfadhl, Yahya, and Rabi (2014) investigated the circumstances in Iraq. A group of 29 specialist lecturers from auditing, accounting, and public administration were surveyed with the Efiong(2012) study with the addition of certain variables which enhanced the nature of the study.

The hypothesises being investigated were as follows:
H1: There is a significant correlation between the forensic accounting education and the effectiveness of detecting the financial corruption activities.
H2: There is a significant effect relationship between the forensic accounting education and the effectiveness of detecting the financial corruption activities.
Kendall's correlation coefficient between the variables 'forensic accounting methods' and 'detecting corruption effectiveness' was $\tau = 0.41$, a seemingly low score which was justified to being acceptable for one variables keeping in consideration the novelty of the approach.

In order to verify the significant correlation between the two variables, τ was passed through the student's (t) distribution, whereafter the calculated T value, T = 2,350 was found to be greater than the theoretical T,T= 1,701 value, which confirmed the first hypothesis, leading to its acceptance.

A regression equation was used to determine whether an effect relationship existed. The equation used was:
$Y=a+\beta 1X1$
Where it indicates that forensic accounting education (x) affects the detection of financial corruption cases (y).
The Analysis of Variance (ANOVA) results were analysed to understand the relationship between the variables.
The calculated regression equation coefficients were then observed to see a definitive trend.
As seen in the results, the 'Non standard Beta coefficient' for 'Fixed' which is 3.127 indicates the discovery of corruption cases which forensic accounting mechanisms are 0, while the 'Standard Beta coefficient' for 'Forensic accounting' measured as 0.382 suggests that a change of 1 in forensic accounting methods will advance a change by 0.382 in the effectiveness of exposing financial corruption cases.
R^2 was measured to be 16.8% which signified that the shift towards the development and use of forensic accounting tools and software can support 16.8% of variation related to the detection of financial corruption, which the other 83.2% unexplained variance is caused by uncontrollable

factors irrelevant to the regression model. Since the results are acceptable since founded in the case of one variable, the second hypothesis can be accepted as well.

KENYA, SUB-SAHARAN AFRICA[7]

Ng'ang'a (2015) explored the role of forensic accounting combating frauds in the insurance industry in Kenya. The study collected information from 42 companies by using a questionnaire. The mean to measure the effectiveness of investigative techniques used in forensic accounting ranged from 3.2143 to 4.8810.

The calculated adjusted R^2 of 12.2% demonstrates that fraud will decrease by 12.2% with the application of forensic accounting. All quoted p values were lesser than 0.05 which attests that forensic accounting services substantially aid in fraud prevention in insurance companies. Analysis showed that Fraud prevention services has the strongest negative correlation coefficient, -0.31, the p value 0.04 influences fraud reduction in insurance companies.

When a regression analysis was conducted, the 'Unstandardised B Coefficient' for 'Constant' where the dependent variable was 'Fraud Prevention' was 13.250. Similar values for 'Investigation Services' read as -0.872 and -1.472 for 'Litigation support'. This goes to show that fraud prevention and forensic accounting are inversely related, a change of 1 in forensic accounting investigation reduced fraud by 0.872, and an increase in litigation services by one reduces fraud by 1.472.

INDIA, ASIA PACIFIC[8]

Gupta and Vij (2021) investigated forensic accounting in the context of financial frauds in the Indian corporate sector. 100 accounting professions with qualifications ranging from graduate, post graduate, Chartered Accountant, Company Secretary and the Institute of Cost and Works Accountants of India were asked for their opinion following judgmental and snowball sampling.

The hypothesises being tested were as follows:

H0-There is no significant effect of forensic accounting in the detection and prevention of financial frauds.

H1-There is significant positive effect of forensic accounting in the detection and prevention of financial frauds.

A perusal of the descriptive statistics of the study results in the understanding that the collective sentiments of the respondents towards whether forensic accounting can be used effectively in the detection and prevention of financial records is positive. The opinion however is unconvinced pertaining to if forensic accounting is sufficient all on its own to detect fraudulent or suspicious transactions.

The one sample T test was then used to investigate the hypothesis.

For the statement: 'Forensic accounting is affective as a fraud detection and prevention tool'

T value: $t(99) = 30.390$ and p value = 0.000.

For the statement: 'Forensic accounting as a tool is solely enough to detect suspicious or fraudulent transactions."

T value: $t(99) = 24.863$ and p value = 0.000.

Seeing as all the other values of p for the statements had a value lesser than $p = 0.05$, the null hypothesis is rejected and the alternative hypothesis is accepted.

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The accepted hypothesis reads as: There is a significant positive effect of forensic accounting in the detection and prevention of financial frauds.

CONCLUSION

The conclusion arrived from all the previous studies, inspite of differences in the manner of investigation, scope of the study, and individuals assessed; in both Asian and African nations is that Forensic Accounting aids to detect and reduce corruption and financial frauds. It is considered by most as an appropriate countermeasure to malfeasance, but cannot be relied upon as the sole remedy.

The case studies listed in this paper are some of the very few documented records or inspections carried out in nations suffering from corruption. In places where the incidence of corruption is particularly rampant, financial hardships are accompanied by a piteous state of the economy, as hyperinflation and soaring crime rates, worsened by a state of social unrest throw the country into chaos. Keeping account of the massive criminalities is out of hand and much of it goes undocumented, as in the case of Venezuela. A lack of records makes it more difficult to understand the state of affairs and how to counteract it, which serves to prolong the vicious cycle of deceit and misery.

Corruption and Financial fraud is a plague that countries all over the world suffer from, it is ingrained in society, affecting the smallest ofbusinesses and even large scale multinational corporations, it is hence in the best interests for us, and the generations yet to come to rid ourselves of this menace which threatens the prosperity of the human race.

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