THE CHALLENGE FOR DETERMINATION OF GLOBAL FRAUD LOSS – A QUALITATIVE STUDY

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Abstract: The high profile fraud incidents have captured the attention of people around the world about the real cost of accounting fraud. The business world is undeniably brimmed with scams and frauds that removed illegitimately billions of dollars. With the increasing number of high-profile scandals, the topic of fraud has attracted unprecedented attention in recent history. The direct losses from fraud and the impact of fraud have grown significantly and simply too costly which conveniently cannot be overlooked. Accordingly, the implications for the global determination of fraud loss has gained ground and has risen to prominence during recent years. The present study aims to examine why it is crucial to measure economic crimes or fraud and how the figure of global fraud loss can be quantifiable. Assessing and identifying the scale of loss from fraud is an important first step toward building a strategy for combating fraud. Equally important to developing a methodology for the accurate measurement of fraud loss globally. This paper explores how a better measurement is critical to a properly designed and strategic response to fraud. Better measurement of global fraud loss can provide a benchmark for exercising anti-fraud strategies, how the programs and activities can work to advantage. How to overcome data quality of global fraud loss and how to ensure the accuracy in exercising the collection methodologies. The methodology applied in this study is a qualitative case study method. The qualitative approach is aimed to determine, define, and investigate research problems. There is no denying the truth that there is no consistent and robust measure across global jurisdictions for determining fraud loss and error. The objective of measuring global fraud and error can be accomplished by implementing and legislating a global standard. The proposed changes are being envisaged as a guide to a global standard to measure the global loss from fraud.

Keywords: *Fraud, Financial Fraud, Fraud loss, Determining Fraud loss, Legislating Fraud, economic crimes, Case study*

1. Introduction

Fraud is typically a criminal activity, and can be defined as 'abuse of position, or false representation, or prejudicing someone's rights for personal gain'. Fraud is essentially an act of intentional deception intended for personal gain or to cause a loss to another party. The key to fraud - the discreet actions or behavior by individuals who steal, harm, or damage the money or property of other people. Fraud is a generic term used to obtain goods, services, or money by a

deliberate act of deceit, beguile, or cheating with the intent to cause harm, injury, or damage. The intentional wrongful conduct can be differentiated and defined in various kinds of wrongful acts depending upon the different types of perpetrators, for example, fraud committed individuals (embezzlement) are distinguished fraud committed by corporations (financial statement fraud) on behalf of the company (Rezaee, 2002).

From the late 1999s, a wave of corporate frauds involving many big names (Shafer, 2002). Fraud with all its encompassing dimensions has a corrosive effect. Fraud is pervasive irrespective of developed and underdeveloped economies of the world, whether democratic, despotic, or/and monarchic are facile prey to fraud offenders. Fraud has become a significant matter of routine business life in the community of nations. The damage caused so common and devastating than those usually focused on by the criminal justice system. Fraud injuriously affects the victims in a variety of ways, results in emotional, psychological, behavioral, physical, and long-term financial difficulties that can be enduring. This fact cannot be denied that the impacts of fraud are not fully appreciated by the government and public policy.

2. Background of the study

Fraud has devastating repercussions upon the victims; the obvious challenge is the wide-ranging cost and impact of fraud. It raises eyebrows on the willingness and ability of the state to safeguard the population from serious financial consequences of the financial crime. As it is a significant source of social injustice remains hidden which exacerbates inequality and undermines the solidarity of global society.

The financial impact of fraud and white-collar crimes on individuals and society have been debilitating and far-reaching. The implications for the nation as a whole remain as severe and multi-faceted. When large public and private institutions are forced to dismantle, employees become redundant. When jobs are lost, employees lose their regular source of income, life-long savings, and long-term investment.

The existence of a legal situation, where the culture of public and private enterprises place profits above ethics, and an atmosphere of greed so vehemently prevalent that frauds and white-collar crimes allow them to flourish unabated. Moreover, the financial scandals have exploded and it triggers a regulatory response, which has often been lazy, procrastinate, and ineffective. Much slow water under the administrative dam regularly flow and care little to control the continuing damage. Numerous governments of developing countries until recently have been very slow in putting in place strict policy measures and legislative framework in combating the effects of fraud and economic crimes. As a result, white-collar crimes have enormously eroded the integrity of public and private institutions especially in developing economies since a sizeable number of them were actively involved in criminal activities.

3. Problem statement

Fraud is inevitably a challenging problem. Its economic effects are absolute and loud - worse public services, less financially stable and profitable organizations, poor resources needed for development, and diminished levels of disposable income for the people. In every sector, fraud has a pernicious impact eroding the quality of social and economic life. In recent years, there have been significant anti-fraud studies conducted in the private sector to spotlight three

important questions: how much fraud is there, whether fraud has, any efficiency consequences, and what determines the level of fraud. In the past, fraud has been described as 'difficult to cost' and it is difficult to quantify the detrimental effects of fraud, whether the recent developments have witnessed any change in quantifying and measuring the profound impacts of fraud and economic crimes.

Why It Is Necessary To Measure Economic Crimes Or Fraud?
The sufficiency of crime data can be seen as a measure of accountability. There are many types of crime, however, the data related to fraud appears to be incomplete, lacking in consistency, inadequate, or sometimes unavailable.

The construct of crime statistics is so broad that it reflects a diverse range of perspectives. "The collection of crime statistics to serve the panopticon poses a relevant question, namely answers concerning what is required and what is not collected by those managing the state" (Levi and Burrows, 2008). The demands for crime statistics, the obvious and important reason it documents an evidentiary record. The collection of crime data provides a way of measuring crime reduction policies (Brand and Price, 2000). In terms of measuring fraud, one of the convincing arguments for developing accurate determination is that without a precise representation of losses from fraud, the basic choice where to channel sufficient resources and using the resources at hand more effectively (Harberger, 1959). The statistics can be used to inform the public and the government about the level of crime of fraud and what causes to change in the level and mode of crime over time.

This is an arguably precarious situation that how much fraud is out there cannot be stated with certainty and it cannot be assured that the problem is under control. Finding the truth is hard enough that nobody knows the length and breadth of fraud. Fraud is invariably committed against individuals, businesses, and the public sector. No global agency or organization exists that is specifically charged with gathering comprehensive fraud-related data, statistics, and evidence. In the absence of any centralized body, determination of the true cost of fraud and fraudulent practices seems to be an impossible task. Given the critical situation, an estimate of the total cost of fraud can be made, that will be just a guesstimate.

Table 1: Fraud Loss on a Global Scale

Study conducted by	Period Covered	Nature	Cases studied	Global Fraud loss (estimated)
Association of Certified Fraud Examiners Report to the Nation 2014	2013	Occupational fraud	1,483 in more than 100 countries	USD 3.7 trillion *
PricewaterhouseCoopers's Global Economic Crime Survey	2013-14	Publicly listed companies	5,128 from 95 countries	-
Kroll Global Fraud Report	2013-14	Public companies	901 respondents	-
Ernest & Young 13th Global Fraud Survey, 2014	2013	Public companies	2,719 executives from 59 countries	-

| PKF Littlejohn Financial Cost of Fraud Report, 2015 Centre for Counter Fraud Studies at the University of Portsmouth. | 1997 to 2013 | Examined losses in expenditure with a total value of £9.76 trillion. | 382 loss measurement exercises in 9 countries | USD 4.23 trillion or £2.78 trillion** |

*5% of annual revenue lost to fraud if applied to 2013 estimated Global Gross Domestic Product (GDP) translated to potential global fraud loss.

** Average losses of 5.6% proportion of the global Gross Domestic Product (GDP) for 2013 USD 75.59 trillion or £49.68 trillion) (World Bank figures).

The study aims to look deeper into available information relating to fraud from diverse sources ranging from public and private sectors to academic journals. Based on a host of methods, whether the estimate for the exact cost of fraud can be made, and certainly, it requires the application of a more regular approach to determine the loss from fraud. Indisputably, the fraud costs to the global economy is a massive sum of money. Recent studies suggest that the cost of fraud may far exceed as mentioned in some commercial surveys even at the lower end of the estimation range. It may never be possible to measure accurately the total cost of fraud. Partly because it is rather hard to reach the victims of fraud. Fraud related information is derived from an array of diverse sources, which suffers from a multiplicity of methodological weaknesses, make it difficult to accumulate the losses from fraud precisely. The problem is more complicated where fraud is not specifically defined in criminal law and most jurisdictions, even there is no specific agency or organization solely charged with gathering comprehensive fraud-related information.

Gaining an accurate picture of the true prevalence of fraud is almost difficult to capture, various factors need to be considered such as counting rules vary widely from one jurisdiction to another and there appears substantial variation in the ways that fraud is universally conceptualized and understood.

How change can be effected?
Given the nature and dimension of the fraud problem, what alternatives are available that could address the issue of imprecise quantification of loss data from fraud, data inconsistency, and unreliable knowledge base. These three drivers justify making substantial changes. The change in the prevailing legal and regulatory landscape to determine an accurate figure for the global fraud loss possible.

Why it is necessary to improve accuracy in determining fraud loss
In 2008, the UK National Audit Office issued a 'Guide to Tackling External Fraud' held, 'assessing the scale of loss from fraud is an important first step in developing a strategy for tackling external fraud. UK Government publishes a report on its fraud review. In its Fraud Review Report 2006, states that better measurement of fraud is crucial to a properly designed and effective response to fraud and helps to support better management of fraud exposure.

In 2004, the European Healthcare Fraud and Corruption Network made a Declaration, the foundation of the body lies in 28 European Union (EU) countries, states "the development of a European common standard of risk measurement, with annual statistically valid exercises to measure progress in reducing losses to fraud and corruption throughout the EU" (Gee, J., et al., 2009). The figures for the loss from fraud are regularly disclosed and disseminated based on the estimate of the true scale and cost of fraud. But what is more worrying is the fact that the true nature and scale of the problem cannot be quantified that represent the reliable estimates of the cost of fraud. Fraud is detected or surveyed for their opinion cannot be accepted as a robust measure of the real economic cost of fraud. Whether this fact can be recognized that fraud can accurately be measured in the same way as other business costs; neither it is unnecessarily costly nor difficult to ascertain. It must ensure and can document how the determination of fraud losses may help to reduce losses. If one, does not know the nature and scale of the problem how can the right solution be applied?

Methodologies to reduce the fraud
From the perspective of global fraud studies, it is important to note that compared to many other crimes, fraud is relatively neglected by researchers (Levi and Burrows, 2008). There are two key sources of crime statistics ordinarily used in the United States are the Bureau of Justice Statistic's National Crime Victimization Survey (NCVS) and the Federal Bureau of Investigation's Uniform Crime Reports (UCR), have historically involved some forms of property crime-especially burglary, robbery, and larceny. Bureau of Justice Statistics (BJS) is an independent statistical arm of the U.S. Department of Justice. The key mission of the BJS is to "collect, analyze, publish, and disseminate information on crime, criminal offenders, victims of crime, and the operation of justice systems at all levels of government" (BJS, 2019). The need for authentic data is critical to federal, state, and local policymakers, practitioners, and academics in fighting crime, ensuring justice, and maintaining accountability. Regretfully, these surveys even do not provide some fundamental information concerning fraud victimization. The fact is commonly acknowledged that the information is a universal need and has the potential of predictive power. While there is a growing awareness that the emerging crime such as fraud should be incorporated into the key surveys of crime.

The first and foremost aspect is to create a specific, agreed upon, and operationalized definition of fraud. There is a wide array of specific fraud offenses, which are defined concerning different cultures, environments, and perspectives. There is a lack of a clear, broad, and distinct definition for the term fraud. More specifically, there is no United Nations system-wide definition of fraud, which gives rise to ambiguity, uncertainty, and confusion. Much of the fraud research has focused on fraud committed against the government and the organizations and that fundamentally different from fraud committed against individuals. Depending on the nature of fraud, modus operandi, loopholes, and roles. The lack of a clear definition has allowed individual fraud to remain relatively overlooked (Beals et al., 2015).

4. Literature review
Fraud Data within crime statistics

Determining all forms of crime is difficult and in case of fraud, it is even more difficult due to its hidden nature. Crime Statistics collected by official agencies are regarded as a quantitative measurement of crime. Crime Statistics, as it is critically examined, are the product of particular agencies and entities, each with ideological biases, strategic purposes, and definite resources (Beirne and Messerschmidt, 2005). Police record crime data "provides a count of fraud, based on legal definitions and they are generally considered to be a poor indication of the real level and trends" (Hoare, 2007). As compared to fraud, the statistics of official agencies direct much more attention to conventional crime. The legal definitions of fraud are purportedly diverse or ambiguous and victims of fraud are often unaware of their victimization. A crime to be reported has to be known, and on occasions where a victim has been defrauded of a small sum of money, they may not be aware of it (Newburn, 2007). Consequently, the wrongdoing may not find its way into either the official crime statistics or victim surveys, therefore, in a way accruing to the dark figure of fraud. Different federal agencies have not adopted a uniform definition of fraud (Kane, 2001). Individuals who become aware that they have been victimized of fraud often fail to report such wrongdoing. In one study, less than one in ten victims of fraud reported this victimization to the police (Kane and Wall, 2006 and Rebovich et al., 2000). Many organizational victims of fraud such as corporations are especially reluctant to file reports because they fear negative publicity and public loss of confidence in the organization (Levi, 1992). Thus, the victims of fraud often report the offense to some entity other than police. Therefore, fraud data is dispersed among numerous different agencies, each with different forms of record keeping. The FBI's Uniform Crime Report (UCR) is the best-known source of national crime statistics in the USA.

5. While it is claimed that due to its limitation including flawed operational definition, lack of clarity, and non-standardized collection policies, it fails to collect and tabulate corporate crimes. Although index crimes - usually conventional crimes such as homicide, burglary; are the focus of UCR. Whereas some forms of fraud and embezzlement are embodied in index crime categories but they are relatively less significant.

Fraud Victimization in Crime Surveys
Fraud is invariably a serious threat to individuals, society, government, and the global community. Gaining a proper understanding of the broad scope of the problem, lack of reliable and official statistics hampers its efforts to end the problem. There are two key **sources** of crime statistics ordinarily used in the United States are the Bureau of Justice Statistic's National Crime Victimization Survey (NCVS) and the Federal Bureau of Investigation's Uniform Crime Reports (UCR), have historically involved some forms of property crime-especially burglary, robbery, and larceny.

Survey-based information is mainly sought where respondents are asked for their **opinions** about the level of fraud. Survey also provides a better measure to examine new or emerging types of crime such as cyber fraud. A significant difficulty in using crime surveys to measure fraud is the delay between the fraudulent act and its discovery, as a result, "respondents may be victimized by fraud at the time of the interview, but be unaware of the fact" (Hoare, 2007). In the context of national crime surveys, it was emphasized that they should focus more on technological changes such as the internet, which opens up new opportunities for criminality

(Mann & Sutton, 1998). Because internet access is cheaper and faster, it offers quick avenues to commit fraud, acts fraudulently, and to run scams. Surveys are tended to vary significantly according to the perceived seriousness of the problem at that time. Since these surveys use standardized methods to address crime such as fraud in an international context. While they sometimes represent a valid survey of opinion - a research approach where subjective opinions are collected. The survey of opinion is in contrast very different from a valid survey of fraud losses. Instead, this is an alternative to analyze actual fraud losses, which have taken place, to accurately measure the financial cost resulting from fraud and white-collar crimes.

The limitation of official enforcement agency data for measuring fraud is widely recognized. A broad measure of how much fraud is occurring; requires that we examine the records of the whole range of regulatory agencies responding to fraud. Most criminologists think that the crime data collected from sources less removed from the criminal event rather than the data processed by official agencies was likely to be more accurate (Jackson, 1990). Thus, victimization surveys are undertaken as one alternative to official fraud data; it helps to collect social and demographic information to show which social group are more vulnerable to victimization, but the usefulness of the survey is severely limited, so far as no internationally recognized uniform fraud reporting system is in place.

Without a standard method of estimating and calculating fraud losses, it is extremely difficult to know the true extent of loss from fraud. Besides, until regulatory bodies, law enforcement authorities, police agencies, and other organizations involved in monitoring and preventing fraud cannot produce a reliable mechanism to measure fraud loss. The resultant estimates in the surveys are likely to remain flawed, inadequate, and inconsistent. However, these estimates demonstrate that pecuniary fraud losses remain to be very severe.

Stressing on an urgent need to develop an informed and sustainable picture of the nature, extent, and typologies of fraud, routinely the surveys should regularly be conducted and be fraud specific. This is even more crucial to intensify awareness of fraud as a crime category; stressing on the importance of monitoring, reporting, and standardizing the fraud data.

6.   The research objectives, questions, and methods

Indeed, there have been many genuine attempts to measure 'the true extent of fraud, but compiling 'reliable' statistics around fraud is not a simple and straightforward exercise as it appears. One of the key aspects of fraud is the element of 'deception', which difficult to identify on one-hand and survey results on the other side, often only reflect the instances of fraud that have been 'discovered'. The legal definitions of fraud vary from country to country; most are based around the general themes. Examples of fraud commonly include illicit or criminal activities, such as bribery, embezzlement, money laundering, and extortion.

Even in those societies that permit access to freedom of information, the collection of accurate data of economic crimes from the occupational, public, and private sectors, and there is no easy way to quantifying the true extent of the problem. The primary sources of data such as the FBI's Uniform Crime Reporting (UCR), victim surveys, and self-reports, generally do not include much information on corporate or management financial crimes. The majority of frauds go undetected and even when fraud is found; often it may not be factually reported. Among other

factors, because predominantly the victim does not want to risk negative publicity of fraud and avoid reporting to authorities.

The survey results may not portray a complete picture, yet the various statistical surveys do offer a useful indication as to the extent and magnitude of the fraud problem. Findings often significantly different and difficult to obtain a complete portrayal as to the full extent of the issue but these surveys are merely indicative of fraud, which is prevalent across organizations and remains a serious and costly problem.

A global study on organizations has revealed that 30 percent of companies were victims of economic crime or fraud (Murphy and Dacin, 2011). The historical development demonstrated that corporate accounting fraud is a significant problem and is increasing in both frequency and rigorousness. The Association of Certified Fraud Examiners, Inc. (ACFE) is the world's largest and premier anti-fraud organization. The ACFE regularly publishes, 'Report to the Nations' to spotlight on the global cost of fraud. The significant finding of the report sheds light on "the cost of fraud to the U.S. organizations, which is expanding - 5 percent of annual revenues, despite increased emphasis on anti-fraud controls and recent legislation to combat fraud" (Ratley, 2014). Fraud has its footprints globally. It invariably affects all continents, all sectors of the economy, and most organizations face the threat regardless of their size, industry, or country.

In this study, the focus on fraud against an individual, private and public sectors, typically by those 'internal to the organization'. The ACFE has discovered and classified, "three broad categories of fraud that adversely affect organizations, namely asset misappropriations, fraudulent financial statements, and corruption". Surveys conducted in the past have found, there has never been a respite in the occurrence of fraud. Fraud has spread globally and corruption and bribery are rapidly growing. The world is facing a challenging environment, which is "conducive to increase the risk of fraud as we are experiencing growing globalization, more competitive markets, rapid developments in technology, and deteriorating economic conditions" (Ratley, 2014).

Research Questions
This paper is aimed to discuss various research questions related to global fraud loss and its implications. Firstly, given the concealed nature of fraud, it is difficult if not impossible to accurately measure the extent and magnitude of the global fraud loss. Secondly, the tasks of measuring loss from global fraud, whether it entails cost-effectiveness. To what extent the efforts to decrease global fraud losses can help to reduce the quantum of the problem. Thirdly, how the researchers and policymakers can obtain an accurate measure of global fraud loss under the circumstances when the losses are not accurately and consistently measured. Fourthly, in those situations, where fraud losses have been quantified, whether they have been properly recorded and corrective measures are taken to avert future occurrences. Fifthly, whether it is advisable to explore the limitations, benefits, and theoretical underpinning of the fraud loss problem, and lastly if one doesn't know the nature and scale of the problem how to narrow the right solution down to the best output?

Research Strategy

The research strategy is commonly referred to as the method of data collection and analyses adopted in the study. In this paper, it includes the case study method and an action research strategy. A case study is a research method with the purpose to achieve a "systematic inquiry into an event or a set of related events which aims to describe and explain the phenomenon of interest" (Bromley, 1990) whereas the "purpose of an action research strategy is to solve a particular problem and to produce guidelines for best practice" (Denscombe, 2010).

Choice of research strategy

This study is mainly focused to apply the case study methodology. The need is being recognized as a case study strategy that is the most relevant to this study, that it provides viable answers to the research questions. The strategy for doing research is focused on the investigation of a particular phenomenon in-depth and within its real-life context by using multiple sources of evidence (Yin, 1992).

Research Propositions

This is an accepted fact that the issue of determination of global loss from fraud is traditionally recognized. As a result, it is also acknowledged that the global fraud loss figures cannot be accurately quantified, chiefly, among other factors, due to the nonexistence of consistent, agreed-upon, and operationalized definition of fraud. There is no agreed-upon uniform methodology to ascertain loss from fraud. Currently, each national, state and territorial jurisdiction has its definition of fraud and has caused an inadequate universal acceptable definition of fraud and its applicability across jurisdictions, which is proved to be principally a critical issue. This is much desired to be agreed upon a universally acceptable definition of fraud in the context of fraud loss measurement from the practitioners, academics and legislators point of views;

a. Most facts concerning fraud are ambiguous and it needs as to how fraud loss could be measured by each sector/ organization of the economy. In a way, the overall fraud loss could accurately be quantified with its reliable explanation of why a particular sector/ organization should measure loss from fraud. Would it be cost-effective to measure the cost of fraud? To what extent the efforts to decrease fraud loss can help to reduce the quantum of the problem and accelerate the implementation of concerted strategies against fraud;

b. This poses an immense question, where does fraud fit concerning other costs of crime? Even when little reliably known about the extent and cost of global fraud in an aggregate sense;

c. The whole progression presents a complicated policy and decision-making effort in controlling the fraud loss over a global scale. How the researchers and policymakers can obtain an accurate measure of fraud loss, where fraud losses are not reported. It causes constraints in the understanding of the problem;

d. Different data sources provide regional/national asymmetrical data, which signifies obvious implications for aggregation. Further data in many cases provide a poor understanding of the aggregate level of discovered and undiscovered frauds and fraudulent activities and lastly, limited information on methods employed behind the fraud loss extent/cost figures (e.g. surveys) deteriorates an exhaustive understanding of data quality;

e. This essentially creates an important proposition, who will assume the key or central role for finding ways to measure global loss from fraud across all sectors of the economies and aggregate at a global scale. Is it possible to establish standards of accuracy to measure global fraud loss; and

f. How the fraud can be controlled and how the national and international standards to control fraud can be implemented, among others, it needs to employ enforcement functions and how a set of policies and strategies can assist in carrying out the responsibilities to combat fraud.

7. Framework for determining global fraud loss

Based on varying situations, there is a need to establish a global framework for the determination of fraud loss. The central theme or main idea to this research argument revolves around two sub-ideas; they can be reflected independently and if they are taken together can justifiably form part of an independent ground. The research argument in this study is attempted from a variety of perspective:

a. Global loss from fraud is essentially formulated to standardize the uniform and comprehensive definition of fraud in the global perspective;

b. There is a need for a global standard to determine the loss from fraud;

c. The global standard can be actualized by legislating and empowering a global body to enforce the standard for determining the loss from fraud;

d. The anticipated legislation is aimed to consolidate the global harmonization process. The international standard will reinforce the determination of loss from fraud;

e. The repository of knowledge based on international best practices can guide strengthening the enforcement efforts of the previous two choices that can effectively be a change agent.

Figure :1 Framework for determination of global fraud loss
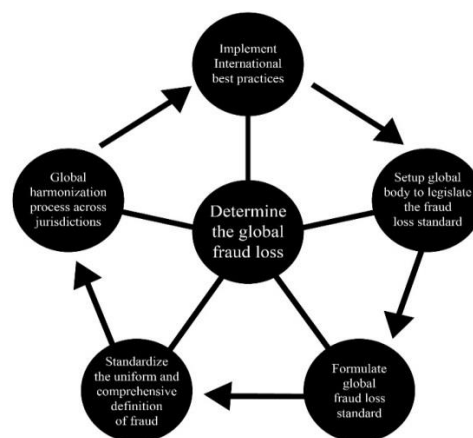
Legislating to quantify the global fraud loss

With the growing risk of fraud and error, the US government intervened to decree a momentous law to measure improper payments made to certain public bodies through the Improper Payments Information Act of 2002 (Gee and Brooks, 2010). In the year 2000, the US federal government has "spent approximately $1.8 trillion". At this point, this is critical to understand,

what is an improper payment? An improper payment represents, "any payment that should not have been made or which have been made in an incorrect amount under legal, administrative and contractual obligations" (Gordon and Willox, Jr 2005; US OMB 2003). Generally, the estimated amount of improper payments include payments that an agency must make under a statute or legislation that should not have been made, were made in the incorrect amount or were not properly supported with documentation.

Congress has passed the Improper Payments Information Act (IPIA) of 2002. The law explicitly requires the federal executive branch to (1) review all programs and activities, (2) identify those that may be susceptible to significant improper payments (3) reasonable estimate the annual amounts of improper payments relating to programs and activities (4) implement required actions to reduce improper payments and set reduction targets for susceptible payments and (5) report on the results of addressing the foregoing requirements of the law.

The results of the foregoing legislation reveal the positive impact of determining fraud loss in the USA and setting recapture targets through the creation of this particular legislation. This is an option for change worthy of consideration when trying to improve the extent, quality, and cost-effectiveness for determining the fraud loss across the world.

Moreover, the two key concepts are fundamental to our academic journey. The concept of error as fraud and error are typically 'lumped' together as a part of the measurement. Emphasizing the prevention, detection, and disruption of fraud, equally important to take tangible measures to reduce errors. The error and fraud impact the quality of information and undermine the judgment. Keeping consideration on the financial losses due to error, the UK's Department for International Development (DFID) has described the error, "where inaccurate or incomplete information is provided, or incorrect processing of information is made that has a material outcome, such as the incorrect amount is paid, but with no suggestion of fraudulent intent" (DFID, 2012).

Formulating global anti-fraud standard for measuring fraud loss
Fraud risk management can effectively be applied across an entire organization as well as to specific functions, projects, and activities of the state. The best example can be sought from the British Standards Institution (BSI), which "delivers best practice solutions through the development and publication of British Standards and standards-related information". These standards promote, share, and exchange best practices. By following such a code of practice which assures that an organization has parity with international best practices and such a standard "provides a single reference point" (Solms 2000). While monitoring and evaluation may be an extended procedure, it ensures that the process is performed to a consistently high standard and offers the opportunity to compare data between organizations or to conduct a longitudinal study of one organization's data. Therefore ensuring that fraud is measured consistently and to a prescribed level of accuracy as defined within the proposed statute.

Sharing best practices
A best practice is a concept, technique, methodology, or solution, which has learned through experience and research, and which proves to be reliable in achieving the desired result. Applying the best practice to organizations, practices which have common traits with others. To

accomplish the desired goals by employing structured and controlled sharing of best practices. It includes successful data collection and analysis methodologies. By promoting and managing the best practices, an organization can identify and share best practices is to learn from others and to re-use knowledge" (Reddy and McCarthy, 2006). Ultimately, this learning can help to reduce fraud and error losses significantly.

The choice for change is the creation and enactment of an International Standard for the determination of global loss from fraud. This could be a common ground for pursuing a daunting global challenge. The development of a global standard is a prevalent practice. Examples for deliverables are the international standards on auditing that are professional standards for internal auditors and international standards on professional accounting are professional standards for accountants in public practice.

The case of global efforts towards combating bribery
In 1997, the United States has launched its conceptual endeavors for the adoption of the OECD Convention on combating bribery of foreign public officials in international business transactions. The encompassing efforts generally refer to the "OECD Convention" and materially it has proved as the leading international forum for fighting global anti-corruption campaigns. The emergence of the OECD Convention is an impetus for global changes in attitudes towards legislation governing all forms of corruption. All achievements towards legalization began a process of "gradual legalization as a focal process" (George, Lacey, and Birmele, 1999). Legalization is a system of institutionalized rules, norms, and decision-making procedures that are constructed and shaped by expectations, interests, and state interactions. International legalization signifies a set of rules, norms, institutions, and practices that shape the expectations and interactions of international actors. They have organized along three dimensions an obligation, precision, and delegation. A legally binding obligation is a commitment by the state or other actors, which is subject to scrutiny under the rules, procedures, and discourse of law. Precision in the sense that rules unequivocally define the conduct they require, authorize, or proscribe the institution. Delegation ensures that the bestowed authority can implement, interpret, and apply the rules for the resolution of the disputes (Abbott et al., 2000). Accordingly, it provides a framework of accepted behaviors, norms, and procedures within which actors may be able to explore, establish, and pursue beneficial cooperative arrangements. Thus, it can be said without a reasonable doubt that gradual or legal processes shall always be successful. Without a clear and transparent legal framework, probably there is a remote possibility to promote legalization. With the existence of fragile legal frameworks, the purpose of promoting the legalization process is to increase widespread cooperation among actors. This cooperation may be more preferable for resolving some of the pressing problems such as corruption. It is of utmost importance that in the early 1990s, the United States became successful in initiating a process of gradual cooperation among OECD member states.

There are many aspects of the international legalization process. When we confront poor performance or inability of the traditional state-based mechanisms, it requires to establish an international organization to improve the performance in the global context or involve the public and private actors, for the implementation and protection of novel practices that reinforce the new norms, from legally binding agreements to create new spaces for international collaboration

(Nilsson, 2017). The relevant actions are helping to develop an intricate global network of public, private, and mixed institutions and norms. This will support the new transnational forum and instrument that we may call Transnational New Governance (Abbott and Snidal, 2010).

Considering the bribery is a widespread phenomenon in international business and there is a strong realization that prompt criminalization of bribery in an effective way of tackling the problem through an international convention. The OECD Anti-Bribery Convention is chiefly an anti-corruption convention of the OECD. This convention is aimed at curbing corruption by encouraging sanctions and developing an effective mechanism against bribery in international business transactions. The leading purpose of the convention is creating and supporting a truly level playing field in today's global economic environment. OECD Convention representing a global forum through its holistic approach has empowered the preventive measures, criminalization, asset recovery, international cooperation, and law enforcement.

8. Findings
In this section, we will examine the vital questions raised in previous sections and explore the relevant evidence to build the core case study on measuring global fraud loss, and seeking pertinent responses as to what is to quantify, how to quantify, who will quantify, why to quantify and when to quantify the global fraud loss.

What is to quantify?
In each sector of the economies, some typical frauds do occur frequently; it necessitates that fraud is grouped into the classification, taxonomy, and typologies measured by each sector in public, private, and not-for-profit.

The Matter of Fraud Definition
In response to the research objectives, designs, and propositions, it is essential to discuss on the construction of a standard operationalized definition of fraud which is relevant, specific and broadly covers meaning and connotations of the practitioner, academician, and legislators, in the context of measurement of fraud loss across sectors of the global economy and acceptable at the international scale. Fraud is manifested in a variety of ways, like fraud, waste, and abuse to overpayment and errors. There is a need to construct a viable, relevant, and easy to understand the definitio of fraud in the context of fraud loss measurement approach.

There were numerous attempts made to develop an international crime classification system but were not successful and faced many challenges due to disparities in definitions, national legislations, and reporting systems around the world.

The United Nations Office on Drugs and Crime (UNODC) has developed the crime classification system. The proposed scheme was collaborated with the United Nations Economic Commission for Europe (UNECE), jointly established a task force on the international crime classification system. The approval was accorded in June 2012 at the 60th plenary session of the Conference of European Statisticians (CES). The task force prepared a report outlined the main principles and guidelines of an international crime classification scheme and delivered a model framework. During its session, the Statistical Commission has adopted the International

Classification of Crime for Statistical Purposes (ICCS) and implemented its plan. The Statistical Commission is the apex decision-making forum for global statistical activities and the setting of statistical standards, methodologies, and priorities in its programs. The ICCS has provided a new standard classification framework based on the behavioral description of criminal offenses rather than national legal codes. The key feature of the ICCS implementation plan was to develop the correspondence tables with the sole objective to transfer national classifications into the new international standard classification (UNODC, 2015, page 19).

In a joint research study undertaken to examine the "victimization of persons by fraud", the core concept of fraud was described as, "the deliberate intent to deceive with promises of goods, services, or other financial benefits that indeed do not exist or that were never intended to be provided" (Titus et al., 1995). Based on this definition, the authors have given an outline of the taxonomy of fraud as a complete view of the overall classification of fraud schemes. The overriding aim was to create a comprehensive uniform classification scheme for all types of fraud and to provide complete information for the development of a broad fraud prevalence surveys across individual countries and territories and relatively detailed focus on individual fraud classification rather than the fraud perpetrated against organizations, the government, or the society (Beals et al., 2015).

England and Wales stand out in a unique position. The legislation has enforced a statutory definition of the criminal offense of fraud. The UK Parliament has codified the offense of fraud as a crime with the passage of the Fraud Act 2006 (Farrell et al., 2007). The law sets out several ways and methods by which fraud may be committed: fraud by false representation, fraud by failing to disclose information, and fraud by abuse of position. The underlying definition of the UK Fraud Act can be presented as a comprehensive definition that can be used for measuring the loss of fraud and the underlying cost of fraud to the national economy and the world at large.

How do we quantify Fraud?
Global fraud loss figures must be quantified precisely so that it provides a benchmark for exercising anti-fraud strategies, if we cannot quantify fraud loss figures with any degree of certainty, it will be difficult to figure out how the programs and activities worked or effective in its tangible results.

Quantification of sector/ organization level of fraud loss
There are predominantly three main sectors namely, the private sector, public sector, and not-for-profit sector in an economy, wherein developed countries, the emphasis is focused on the extent of fraud loss measurement sector-wise. In the private sector, organizations either deny completely that they had any fraud or plan only to react after the fraud has taken place. The fraud cost can only be reduced if it can be measured, and a methodology to measure fraud loss can accurately be developed and implemented to mitigate its pernicious effects, whereas fraud loss measurement methodology does not rely on survey-based information where those involved are asked for their opinions about the level of fraud. As evident, the loss to fraud and error as demonstrated by international surveys and reports are considered terrifying, and significant sums of money are routinely wasted around the world from the public funds.

Does fraud loss fit in other costs of crime?

In almost every area of business life, organizations routinely know what their business costs are staffing costs, utility costs, procurement costs, and other costs. The organizations must have a mechanism to quantify fraud loss and they need adequate credible results and a serious assessment of its cost in the same way, as they would know about all established business costs. In cases where losses to fraud and error are treated as a business cost just as any other cost, it paves the way for recording, tracking, and reducing the impact of the losses from fraud.

Can Policy-makers obtain an accurate measure of fraud loss?

Without accurate and reliable measurement of fraud, it is difficult to understand what works or does not work. Current fraud prevalence is widely based on guesstimates. Historically, a significant number of fraud victims are hesitant reporting to authorities. Data gathered from all over the United States, an estimated 37.8 million incidents of fraud took place in 2011, but authorities received just over 1 million fraud complaints. An estimated $40 - $50 billion is lost to fraud annually, but victims reported losing $1.4 billion to fraud in 2012, as measured by complaints filed with the Consumer Sentinel Network. Surveys are therefore the most common method of collecting global fraud prevalence data, while such surveys sometimes represent a valid survey of opinion that is very different from a valid survey of fraud losses.

Proper Reporting mechanism(s) for fraud victims may be valuable in reducing the current levels of under-reporting. To respond positively, how much accurate current data available which is truly reflective of the phenomenon of global fraud losses. The public agencies must publish a 'statistically valid estimate' of the extent of fraud and error in their programs and activities, resultantly; there has been a massive growth in the number of organizations accurately measuring fraud as a business cost like any other cost of business.

How to overcome data quality and the challenge of global fraud loss coverage issues

Fraud loss data-quality should have a fundamental role in the collection efforts of fraud loss data. Data collection should not take place without first defining fraud loss data for the programs and activities and should involve respective national, state, and territorial governments to collect fraud loss data and other stakeholders shall apply the fraud loss data for decision-making purposes.

The quality requirements for fraud loss or error data are best management practices that must follow when analyzing, handling, and reporting fraud loss results. The reduction of fraud loss is the most important, and the frequency with which a decline in fraud loss is seen as a prime goal and indirect measure of a state, territorial, national, and global development.

The global agency specifically formed for the task to collect fraud loss data from state, territorial and national governments around the world and review annually all fraud loss and error data that it identifies, monitors, and administers that may be susceptible to significant fraud and errors.

How the standards could be implemented?

An international legal framework is required for fair, equitable, and stable globalization. The globalized economy requires action at the international scene. Today, the challenges of

globalization have made international standards more relevant and important than ever before. The international community has assumed legal obligations and significant resources have been devoted to the emerging challenges. The global community has responded to the challenges of legal instruments on trade, finance, environment, human rights, and corruption and have invariably codified in their national legal regimes. The international standard for measuring fraud loss, therefore, can effectively lay down the basic minimum standards agreed upon by all players in the contemporary global economy.

An international legal framework on a standard to measure the fraud loss ensures a level playing field in the global economy. It will help governments, private and public sectors, and even the social sector by reducing loss, waste, and abuse of the programs, activities, and expenditures.

International Standard provides strategic tools and guidelines to help the international community to tackle some of the most demanding challenges of combating **global** fraud and financial crimes. Fraud is a global phenomenon found in every country – whether big and small or rich and poor - but it is in the developing world its effects are most destructive; it requires the concerted action of the global community.

To establish a platform where countries can compare their fraud loss levels and trends, a similar forum such as the OECD Convention against bribery can take **substantive** enforcement actions - such measures range from economic and/or other sanctions. Sanctions offer the forum an important instrument to enforce its crucial decisions. The universal charter of the United Nations can make it an especially appropriate body to establish and monitor such measures.

9. Conclusion

Measuring financial fraud loss is an important arena. In most jurisdictions, generally, the term 'fraud' is not adequately defined and is not covered broadly in their respective criminal laws. While defining fraud, the problem of uniform definition seems to be challenging, therefore the underlying methodologies to measure fraud loss could not have developed and the true cost of fraud loss could not precisely be measured. The Fraud Advisory Panel observes that the lack of a "Comprehensive or universally accepted definition of fraud limits meaningful data analysis", and makes "Comparison of statistics from different organizations difficult". The current discussion of how to measure precisely fraud loss is more of academic nature rather than a practitioner or legislator's point of view.

Given the nature and dimension of the fraud problem, what are the alternatives available to make things happen? Who will take the reins, whether an autonomous body can be called upon to intervene in the process of measuring fraud loss, or making a substantial change in the prevailing circumstances? No distinct substantive model exists for gathering comprehensive global fraud statistics. A single global agency or organization with a mission, policies, and objectives of measuring global fraud data is seriously lacking. All of the very factors have contributed to estimating the total cost of fraud just as a guesstimate of the global problem. The difference between the guestimates of fraud losses and the data from the measurement of valid and precise fraud losses indicates the worst aspect of the problem. Since these factors apply to several government programs that collectively disburse billions of dollars annually, there is a genuine need to legislate for safeguarding assets, preventing, detecting, and responding fraud and

errors on the pattern and style of the Improper Payments Information Act of 2002 of the United States of America.

10. Limitations of the study

There are diverse models of case studies and the use of a case study in qualitative research practice suggests that differences in perspectives on case study methodology may prevent researchers from developing a mutual, exclusive, and robust understanding of practice and rigor. Discussion about case study limitations has led some researchers to raise the question of whether the case study is indeed a methodology. There is a level of subjectivity involved and this should be considered when interpreting the underlying findings.

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