



Whistle Blowing System (Wb-S) and Fraud Prevention and Detection in Companies: Proposing A Conceptual Model for the Protection of Whistle Blowers

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ABSTRACT

In many quarters, it is still pondered, why do companies with even a well structured and implemented Whistle Blowing System (WB-S) still witness and record cases of fraud. Firstly, this explains why this study is aimed at examining if Whistle Blowing System (WB-S) significantly impact on fraud prevention and detection. Secondly, virtually all prior researches on this subject have indeed and correctly reported on how our legal provisions, frameworks, and society have given insufficient and inadequate protection to whistle blowers against reprisals and victimization, but rarely have anyone come up with a concrete conceptual model for an effective and better protection of whistle blowers. That creates a gap in literature, which this study aimed to fill. In carrying out this study, survey research was employed, with respondents coming from the 20 incorporated companies in Nigeria, classified into two equal groups – companies with a formal and well-structured WB-S (With WB-S); and those without a formal and well-structured WB-S (Without WB-S). Two hypotheses were formulated, with the first and second tested with SPSS (ver. 25)'s descriptive statistics of ANOVA and Person Chi Square, respectively. The study found that a significant relationship between implementation of WB-S and fraud prevention and detection in incorporated companies exist. Thus, the study then contributed to the body of existing knowledge by proposing a conceptual model, which juxtaposes the development of a single and comprehensive WB legal framework (legislation) with the creation of a global Whistle Blowers Protection Council (WBPC), for the effective and better protection of whistle blowers.

Keywords: Whistle Blowing, Whistle Blower, Whistle Blowing System, Whistle Blower Protection, Whistle Blowing Legal Framework, Whistle Blower Protection Council, Fraud, Fraud theories, Fraud Triangle, Fraud Diamond, Fraud Prevention, Fraud Detection.

1.0 INTRODUCTION

In aeronautics, and for decades now, we have read of, and observed, the gargantuan investments of financial resources (in billions) and brain power in space exploration programs and technology of many national space administrations and agencies (like NASA, ROSCOSMOS, CNSA, *et cetera*), and by other private space investors (like SpaceX, Virgin Galactic, Blue Origin LLC, *et cetera*). And mankind have since, and consistently, debated on why such investments are not rather rechanneled at lifting millions of children, men and women around the world pathetically swimming in the mud of poverty, and wallowing in the ash heap of hopelessness; and in solving the 'real' and 'immediate' problems of human on earth?

However, space exploration striving to adapt human lives to other planets; monitoring the effects of global warming; succeeding in installing earth satellites (now providing global services improving communication, geological, and security services); and recording other astronomical discoveries that have handed man enhanced tools for control of his environment, may give us greater understanding of the unique place of each divide of argument in advancing the course of humanity. Thus, each could be seen as a quintessential end.

For companies, similar argument is sometimes made in some quarters and societies of the world, particularly in Nigeria, when management invest (via programs, policies, training, and education) in the installation and implementation of system or procedures that could help report anonymously, detect, and prevent illegalities, improprieties, or other fraudulent practices. This is the import of Whistle Blowing System (WB-S). Some societies view it as a disruptive undertaking that is taking the space, energies, and resources that would have been channeled for other 'progressive' and 'better' organizational policies and/or system; and sometimes carries the tag of betrayal, than being seen as beneficial to members of the public. This could explain the non-appreciable and ineffective implementation or utilization of this feature or system by some stakeholders of many companies in this

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clime. But at the long run, and ultimately, societies, institutions, companies, and citizens are short-changed when everyone is unwilling to *blow the whistle* in the face of corruption (Transparency International 2020).

However, the place of WB-S in fostering good corporate governance of companies cannot be over-emphasized. Its place even becomes more pronounced when we examine the statistics or findings of existing studies. A study suggested that at least 30% of companies globally have experienced one form of fraudulent improprieties or the other (Pricewaterhousecoopers 2009, in Lee and Fargher 2013); and that the major perpetrators being the employees and management of companies (Coram et al. 2008; KPMG 2009, as cited in Lee et al 2013). In the same vein, Emeka-Nwokeji, Okeke & Ojimba (2019) cited the 2007 study by Association of Certified Fraud Examiners (ACFE) that revealed that 6% of annual revenue of companies is lost owing to fraud and abuse.

The 2016 study of Association of Certified Fraud Examiners (ACFE) also found that 34% of frauds and other improprieties are detected through tip off from employees, vendors, customers or anonymous person (Coenen, 2006 cited in Emeka-Nwokeji et al (2019). This goes to opine that some employees become aware of improprieties in their companies (Appelbaum et al. 2006; Kaplan et al. 2010; Moberly 2006 as cited in Lee et al 2013). According to the conclusion of the study by the Institute of Business Ethics (as cited in Maulida&Bayunitri, 2021), 1 of 4 employees are aware of cases of improprieties, but more than half (52%) of them become reluctant to report them. This position is also consistent with that made by Lee et al (2013) – who attributed it to either the absence of an effective system or mechanism, or its non-utilization, which would protect them and their identity from any resultant ostracism and other forms of victimizations. This reemphasizes the pivotal place of the implementation of an effective WB-S in companies.

More also, WBS is increasingly becoming a focal point for companies and their stakeholders, as the mere knowledge of its institution is somewhat of a deterrent to ‘unscrupulous person(s)’ who may contemplate perpetrating fraud (Ehioghiren&Oeaga, 2020). However, the ponder remains: that, despite some companies in Nigeria having a well structured WBS in place, there still are preponderance of evidences of multiple fraud cases witnessed and recorded (Ehioghiren et al. 2020). This could explain the reason both practitioners and academics, especially in this clime, at times, question the effectiveness of WB-S in fraud prevention in companies. That is why this study aimed to firstly, examine the effect the implementation of WB-S on fraud prevention.

Secondly, on 23 June of every year, we place our foets on the break pedestal, to observe the *World Whistleblowers Day* – a day set aside to appreciate the role and contributions of whistleblowers in the quest for a more equitable and just world (Transparency International 2022). But year after year, this day instead, and always, turn to be a dreary reflection of how our systems, institutions, and societies have continually failed to protect whistleblowers (Transparency International 2020). Many prior researches have corroborated this finding, of the paucity of workable and efficient system, mechanisms, legislations, and will-power for protecting whistleblowers. But little or no workable propositions, that could actually and effectively shield whistleblowers, have been put forth by these researches. This creates a gap for both practitioners, and in structured literature. Hence, contributing coherently to the constituted body of knowledge, by way of proposition of what could be seen as a applicable and efficient model for the protection of whistleblowers, and that can apply globally, would be a great accomplishment for this research.

2.0 CONCEPTUAL AND EMPIRICAL FRAMEWORK

2.1 WHISTLE BLOWING (WB)

According to Idris & Babangida (2021), Ralph Nader, a United State of America’s civic activist, is credited with coining the phrase – *whistle blowing* (WB). It was in the early 1970s that a ‘positive spin’ was attached to the term, to immune it from the negative attachment as with other related terms like ‘informer’ and ‘snitch’ (Idris et al 2021). Historically, its formation and usage dates back to the 19th century, when it was connected to the use of whistle to announce to the public of an infringement or deviation from the rules of a game; and when it was equally attached to law enforcement (Idris et al 2021). Ehioghirenet *al.* (2020) affirmed that the term originated from the phrase – ‘blow the whistle.’ It is being used by sport referees who uses whistle to call out a foul play during a game (Martin, 2017 cited in Idris et al, 2021). For decades now, it has increasingly being used also by companies’ management and governance.

However, WB is widely defined as the disclosure or report by former or current employees, of illegal, unethical, or unacceptable practices to their employers, persons or organizations that have the capacity or authority to act (Near & Miceli 1985). Brown, Latimer, McMillian, & Wheeler (2008) as cited in Ehioghirenet *al.* (2020) opined that the term can also be regarded as the disclosure of information, that is of public interest, about perceived ‘wrong doing’ in a company, to parties in a right position to take action. Fasua&Osifo (2017) cited the following definitions by International Labor Organization (2005), which described WB as the reporting by employees (present or former) of illicit, strange, harmful or immoral practices by employers; the United Nations Convention Against Corruption (2005) which referred to WB as disclosure from any person, who in good faith and on rational grounds, reports to the relevant authorities “any fact in issues concerning offences established in line with” its Convention; and the Council of Europe Civil Law Convention on Corruption (1999) which defined the term as disclosure by employees who have sufficient “*grounds to suspect corruption as well report in good faith their suspicion to responsible persons,*” or authorities. Hence, the perceived impact of WB particularly in companies has pushed many to develop policies and programmes to guide and direct its users. These users are widely referred to as *whistle blowers*.

According to Gillan (2003), as cited in Idris et al (2021), whistle Blowers is described as persons (mostly employees) who have been motivated by sense of either personal or public duty, and at their own peril, disclose what they perceived as wrongdoing. That is, they are persons who inform the relevant authorities or members of the public about alleged unacceptable or dishonest activities happening in a company (Idris et al. 2021). Ehioghiren

et al. (2020) described whistle blowers as ‘reluctant dissenters.’ Cassematis & Wortley (2013) as cited in Ehioghien et al. (2020), explains that, they are persons who announce ‘falsehood and corruption,’ even though they are aware of the negative outcome to them, which may include job disengagement. This goes to show that opting to be a whistle blower is not a risk free adventure, as it may entail being a target of direct and indirect reprisal and obnoxious attack from affected persons, company members, and even the larger society.

However, different researches and organizations have given different suggestions on what should be adjudged to constitute improprieties or wrongdoing. Ajero (2009), as cited in Ehioghien et al. (2020), suggested the following popular constituents: deviations from the law and regulation; and any activity constituting a direct threat to public interest, e.g fraud, health and safety violation, and corruption.

2.2 WHISTLE BLOWING SYSTEM (WBS) AND WOES OF WHISTLE BLOWERS

According to KNKG (2008), as cited in Clyde & Hanifah (2022), WB system is an integral component of internal control system that helps to prevent irregularities, fraud practices, and emboldens the implementation of sound corporate governance practices. It has been defined as the mechanism for the submission, management and follow-up of report of alleged improprieties perpetrated by internal or external parties (Jabar Banten Bank Whistleblowing System 2020, cited in Maulida et al. (2021). This explains why this system is adopted in many companies as a tool for fraud prevention and detection. Accordingly, there are avalanche of research evidences that have proven that a well implemented and effective WB system will encourage more employees and other stakeholders to voluntarily participate in its use. This position is corroborated by Maulida et al. (2021) who cited Komite Nasional Kebijakan Governance (2008), that an effective WB system will foster the participation of all, minimizes the attitude of ‘silence,’ and rather reinforce that of ‘honesty and openness.’

However, Emeka-Nwokeji et al. (2019) considers WB system to involve the establishment of WB programme. According to their study, the later entails the design and implementation of a well structured procedures and policies for anonymous disclosures in a company. Additionally, it involves a wide ranging activities: complying with laws and regulation; training and education of stakeholders on how to use WB methodical procedures for submitting confidential or anonymous complaints; and the provision of safe WB communication channels, e.g hotline, e-mail, fax, voice mail, and designated portal (Emeka-Nwokeji et al. 2019). Additional, when a whistle blower provides a communication or feedback medium, it becomes necessary to update him or her on the findings or outcome of the investigation process. Accordingly, Thornton (2006), as cited in Emeka-Nwokeji et al. (2019) provided the steps of an effective complain-handling process as follows: receipt of complaint, analyzing and investigating the complaint, resolution of the complaint, and its reportage.

However, considering the woes of famous whistle blowers around the world, leads us to a greater fathom that the implementation of WB mechanism does not in itself, make the whole system effective; there is need for a protective and support mechanisms. Perhaps, other researches on this subject have already qualified this protective and support mechanism as the most important element of the whole WB system; and that this is the area companies, and even societies, keep failing whistle blowers.

Sherron Watknis, Cynthia Cooper, and Coleen Rowley were famous whistle blowers who suffered different woes. Watknis was the vice president of *Enron Corporation*. And in 2001, she *blew the whistle* to its board that the company’s accounting records and practices were improper. Her disclosure indicted the auditor and the chief financial officer; and subsequently leads to its collapse and bankruptcy. For Cooper, then auditor with *WorldCom*, and in the year 2002, *blew the whistle* to its board, on how the company had concealed huge losses of \$3.8 billion as a result of *window dressing* (Legal-dictionary, 2003). The same disclosure of this accounting misnomer contributed to the bankruptcy of WorldCom. In the same year, Rowley, a staff attorney of U.S.A’s FBI, *blew the whistle* too, via a letter she sent to the then FBI director, Robert Mueller, pointing how the bureau’s national headquarters had failed to apply due care and diligence in the case of on Zacarias Moussaoui – who was later alleged to be linked to the 9/11 terror attack in America. However, in recognizing and identifying with the woes (of harsh treatment) suffered by these three aforementioned females, in their respective workplaces after their respective disclosures, *Time Magazine* became moved to dub the year 2002 as the “Year of the Whistle Blower,” and awarded the three as its “Persons of the Year,” for “speaking up when no one else would.” According to Legal-dictionary (2003), their stories up-shot them to becoming national celebrities, and inspired many in buying to the notion that women can actually blow the whistle, not for any potential self-aggrandizement motive, but out of sheer sense of duty.

More recently, Transparency International (2022) recounted how in March 2021, one Francesco Zambon resigned from a popular international organization, after several months of harsh and intolerable working conditions, owing to his report about “apparent suppression of a study on Italy’s Pandemic Preparedness.” Transparency International (2022) also recounted other cases involving John O’Brien and Emma Reily, who were different staff of two reputable international organizations, but got fired owing to their disclosure of improprieties or wrong doing in their respective offices. These are just few of the many cases of the woes of whistle blowers around the world, of which great number may never make headlines.

However, in the Nigerian public sector, WB became more pronounced as from December 21, 2016, when the Federal Ministry of Finance, on behalf of the federal government, launched the WB programme. Despite the programme’s provision of online portal for WB, and its enticing rewards to whistle blowers for “information that directly leads to the voluntary return of stolen or concealed public funds or assets,” it does very little in providing sufficient protection for whistle blowers against risk of reprisal, and other forms of victimizations (Idris et al. 2021). Even the whistle blowing legal frameworks (legislations) enacted for their protection, have been found by prior researches to be fragmented, weakly enforced, and most times failed in capturing for persons outside the formal or traditional employee-employer relationship (e.g, consultants, informal workers, and suppliers or contractors outside this relationship)

2.3 FRAUD, FRAUD THEORIES, FRAUD PREVENTION AND DETECTION

Fraud is a popular word that has been defined by different researchers and authors in different ways. Fraud has been defined by Webster's Dictionary of Law (1996) as "Any act, expression, omission, or concealment calculated to deceive another to his or her disadvantage, specifically, a misrepresentation or concealment with reference to some fact material to a transaction that is made with knowledge of its falsity. And or in reckless disregard of its truth or falsity and worth the intent to deceive another and that is reasonably relied on by the other who is injured thereby." - as quoted in Abdullahi & Mansor (2015). In another terms, Mamahit & Urumsah (2018) also cited Tuonakotta (2013) defining fraud as act that contravenes the law by engaging in deliberate act to achieve self or group gains. Economic theorists trace the origin of fraud as dating back to when managers or Chief Executive Officers, CEOs indulge in rampant white collar misappropriation (Idris *et al.* (2021).

Redding *et al.* (2014) as cited in Puryati & Febriani (2020), rather defined fraud as a negligent act devised to deceive victims. It is also described as cheating by means of irregularities or unethical acts deliberately perpetrated to mislead unsuspecting persons within and outside the organization (Maulida & Bayunitri (2021).

Ehioghiren & Oeaga (2020) cited Okoye (2016)'s definition of fraud, as all multifarious means devised cleverly for taking advantage of another via false suggestion and suppression of truth. Fraud can also be seen as an intentional and planned act of deception aimed at depriving another of rights or property (directly or indirectly) irrespective of whether the perpetrator benefits from the act or not (KPMG 2004 cited in Omar & Bakar (2012). Abdullahi *et al.* (2015) cited the Adeneji (2004) & Institute of Chartered Accountants of Nigeria (ICAN) (2006) as they both defined fraud as the deliberate act by members of the management, employees, or third parties who manufacture errors in financial reporting for their own personal favor. However, this research defines fraud as the conscious and articulate act of deception, falsification of records, and contraventions of law, with either the intent to deceive, or for self and undue aggrandizement.

Over the years, two major theories of fraud have been put forth and widely cited in literatures: the Fraud Triangle Theory (FTT), and Fraud Diamond Theory (FDT) propounded by a criminologist - Donald Cressey, and Wolfe & Hermanson, respectively.

Cressey (1953) in his FTT, argued that three (3) factors or criteria must be met for a fraud to happen: *Pressure*, *Opportunity*, and *Rationalization*. *Pressure* is the perceived motive/incentive, financial or non-financial, that leads to unethical behaviors (Abdullahi *et al.* 2015). It is the ignition of the heat for the fire (Lister 2007). *Opportunity* is seen as the existing loophole that allows for the occurrence of fraud. Better still, it is the fertile soil the seed of fraud finds and germinates on. This perceived opportunity is created largely by either unavailable or weak/ineffective internal control/governance system (Abdullahi *et al.* 2015). *Rationalization* according to Abdullahi *et al.* (2015) is the seeking of excuses and justification on how the thought-out and planned immoral conduct is different from criminal activity. Example could be a government official saying: "I stole money because everyone in public service steals," or "I embezzled money, because government money is nobody's money."

On the other hand, FDT of Wolfe & Hermanson (2004), was first published in December 2004 in the Certified Public Accountant (CPA) journal, and is widely held as an expansion or improvement from Cressey (1953)'s FTT (Abdullahi *et al.* 2015). The two theories are similar save for Wolfe & Hermanson (2004)'s argument and submission, that the trio of pressure, opportunity and Rationalization are hardly sufficient forces and factors, in themselves, to trigger fraud to occur, without the potential perpetrator having the exquisite skills, intelligence, and technical abilities to commit the planned fraud. Thus their addition of the 4th factor (Capacity) to Cressey (1953)'s FTT to form their own fraud diamond (FDT).

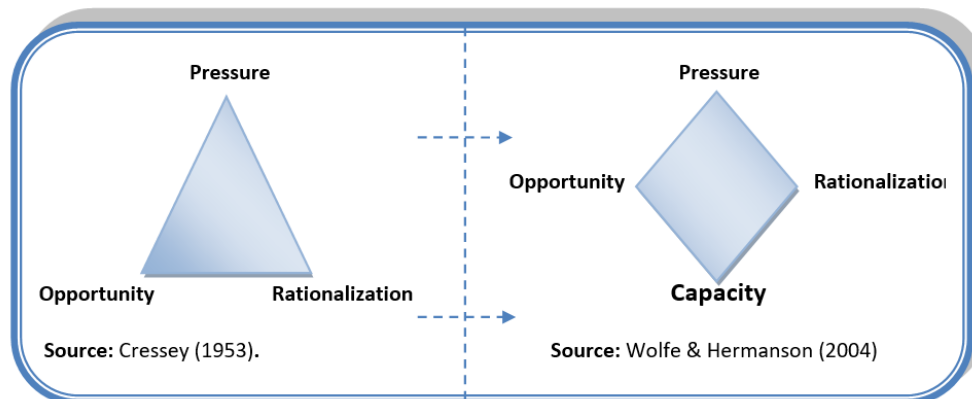


Figure 1: Fraud Triangle (FTT) and Fraud Diamond (FDT).

The thorough fathom of these two theories by forensic accountants, fraud examiners, auditors and other anti-graft bodies have been found by prior researches to prove invaluable and veritable for better fraud prevention.

Fraud prevention and Fraud detection, even though mostly used side-by-side, are fraud control system that have different concept. Emeka-Nwokejiet *al.* (2019) opined that fraud prevention involves setting up policies, procedures, communication and training that are capable of minimizing exploitive opportunity for perpetrating fraud. According to them, installing fraud preventive techniques is the most important line of defense for minimizing fraud; and that these techniques should promote organizational awareness of fraud risk, assessment of risk, evaluation of internal control procedures,

management programme, investigations, and education on the types of fraud that may occur, how to identify and report it. However, Maulida et al. (2021) argued, while citing Anti-Fraud control (published base on the 2016 result of the Association of Certified Fraud Examiners (ACFE) Indonesia) that the best and the most effective fraud prevention technique remain the WB-S.

Whereas, according to Emeka-Nwokeji et al. (2019), fraud detection are activities or control designs aimed at identifying fraud that is perceived as occurring or to have occurred. Timely fraud detection becomes highly imperative as companies may not holistically prevent fraud. This is because there is always a tendency for human to engage in one form of improprieties or the other. Just as Philosophy's 'Doctrines of Innate Purity' would suggest: no one is naturally good except children. Nwakeze, Orajekwe, & Oshiole (2022) equally opine that, even when human may intent to act rightly, an internal or inherent conflict may force him to act otherwise. This is the same reason Nwaze (2006) described absolute fraud prevention as a misnomer and utopia; and opined that no such paradise exists (cited in Emeka-Nwokeji et al. (2019). Golden, Skalak & Clayton (2006), cite in Emeka-Nwokeji et al. (2019), also qualified absolute fraud prevention as laughable and unattainable, and claimed that no such absolute and insurmountable barrier against fraud can ever be built. This explains the need for installing and/or implementing a well designed procedures and techniques for fraud detection, to compliment fraud prevention. This leaves us with the reminder that fraud has the ability of being absolutely, but cannot be absolutely prevented!

2.4 REVIEW OF EMPIRICAL STUDIES

Various researches have been undertaken on the subject of whistle blowing and fraud prevention and detection. Mamahit & Urumsah (2018) via a proposed conceptual model that included forensic audit, fraud detection, investigative audit and WB, proved WB to be a vital factor that needs to be considered in improving fraud detection. Puryanti & Febriani (2020) is also a study that analyzed the effect of WB and internal control on fraud prevention on State Owned Enterprise (SOE) in Indonesia. This study employed multi regression tool, and revealed that such effect or influence significantly exists. Clyde et al. (2022) is another study that applied survey design, and Partial Least Square (PLS) technique to find, among others, that a "partial" positive significant effect exist between WB-S and fraud prevention. Emeka-Nwokeji et al (2019) rather utilized the descriptive statistics of sample t-test, and Pearson Product Moment Correlation Coefficient to reveal that WB-S is a significant tool for reducing fraudulent activities; and found a significant relationship to exist between WB-S alongside its legislation, and fraud prevention and detection in public companies.

Lee & et al. (2012) also examined the variation in the extent of WB disclosure among the companies listed on S&P/ASX 200 Index in Indonesia; and found, among others, that the extent of WB disclosures is positively associated with, majorly, the availability of anonymous reporting mechanism, and organizational support for WB. Fasua et al. (2017) employed multi-variate regression tool to examine the effect of WB mechanism and audit committee in the banking sector of Nigeria, and found a strong relationship between an effective WB mechanism and audit committee independence, et cetera. However, Omar et al. (2012) employed survey design in helping to provide companies with insights on the identification of most effective fraud prevention mechanisms.

Ehioghirenet et al. (2020) also examined the effect of WB on fraud detection in public sector in Nigeria. This study used the descriptive research design, and t-test statistical tool to arrive at the finding among others, that WB legislation is a panacea for fraud prevention and detection in both the federal and state businesses and parastatals in Nigeria; and that federal public businesses and parastatals have a significantly high and better WB reporting practices than in states'. Maulida et al. (2021) aimed to determine how the implementation of WB system affects the prevention of fraud in a bank in Bandung Indonesia - Jabar Banten Central Bank. This study employed the explanatory design and simple linear regression analysis to reveal that WB system affected fraud prevention by 54.3%. A related study by Idris et al. (2021) also aimed to investigate the effectiveness of WB policy on fraud prevention. The analysis of data obtained from this study revealed that, although WB policy has significant impact on fraud prevention, its implementation among the 3 tiers of government significantly varies. That is, a higher implementation is found to be at the federal level.

However, Abdullahi et al. (2015) rather employed secondary data source to aim at an in-depth review of the possible motivations for perpetrating fraud, by undertaking a convergent and divergent study of the two prominent and classical fraud theories – the fraud triangle theories (FTT) and fraud Diamond theories (FDT).

3.0 RESEARCH METHODOLOGY

3.1 RESEARCH DESIGN

The research design employed for the study is survey design, with the respondents being each of the *Head*, Internal Audit Department and/or other employees of the randomly selected twenty (20) incorporated companies in Nigeria, stratified into two equal groups – companies with a formal and well-structured WB-S (With WB-S); and those without a formal and well-structured WB-S (Without WB-S). The data obtained were analyzed with descriptive statistics. Two hypotheses were formulated, with the first and second tested with SPSS (ver. 25)'s descriptive statistics of ANOVA and Person Chi Square, respectively. These tools provided the statistical evidence, and assisted the researcher in the determination of the decision, on acceptance or rejection of the null hypothesis.

3.2 MODEL SPECIFICATION

To ascertain the relationships among WBS, fraud prevention and detection in corporate companies in Nigeria, this study adopted the endogenous growth model (also known as AK model), as employed in Olayungbo and Olayemi (2018), Aghion and Howitt (1992), and Romer (1990). The econometric and functional relationship between the dependent variable and the independent variables are seen in the equation below:

$$Y = AK \quad (1)$$

$$K = f(FP, FD) \quad (2)$$

Substituting Eq. (2) into (1), we arrive at:

$$WBS = f(FP, FD) \quad (3)$$

This research then proceeds by transforming Eq. (3) in a linear format as:

$$WB-S = \alpha + \beta_1 FP + \beta_2 FD \quad (4)$$

In econometric term, Eq.(4) can be written as:

$$WB-S = \alpha + \beta_1 fp + \beta_2 fd + \epsilon t(5)$$

Where $WB-S$ is the log of Whistle Blowing System; fp is log of fraud prevention; fd is the log of fraud detection; ϵt is stochastic error term; α = Constant; while β_1 & β_3 are regression coefficients.

The research expects, on the a priori, $\beta_1 > 0$, $\beta_2 > 0$.

3.3 HYPOTHESES TESTING

3.3.1 HYPOTHESIS ONE

HO₁: There is no significant relationship between an effective WB-S and fraud prevention.

The data applied for this test, is majorly the data obtained from the responses of the Head, and/or employees of Internal Audit Department of the two groups, on the recorded number of fraud cases in their respective companies for each year of the past ten years (i.e. from 2013 - 2022). This data is best presented in figure 2 below:

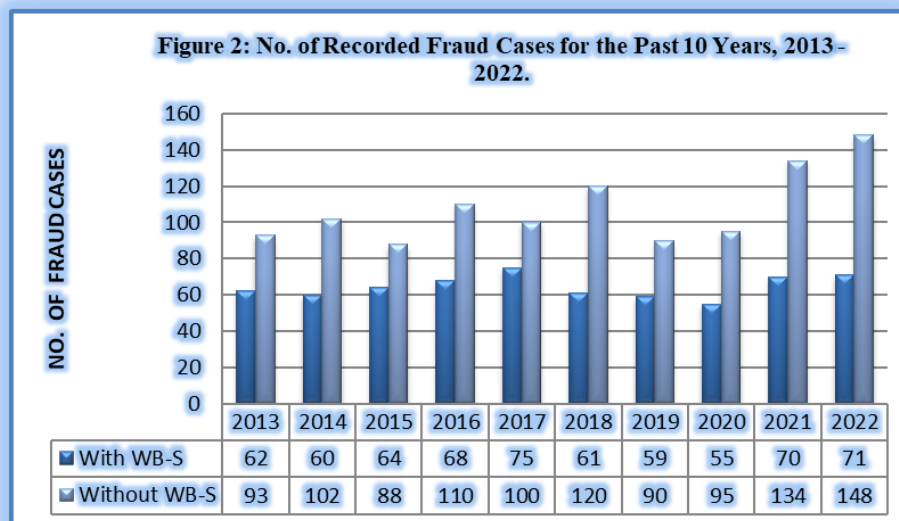


Figure 2 above depicts that the total number of fraud cases for the 10 incorporated companies with WB-S are: 62 for the year 2013, 60 for the year 2014, 64 for the year 2015, 68 for the year 2016, 75 for the year 2017, 61 for the year 2018, 59 for the year 2019, 55 for the year 2020, 70 for the year 2021, 71 for the year 2022; while that of other group, 10 companies without WB-S are: 93 for the year 2013, 102 for the year 2014, 88 for the year 2015, 110 for the year 2016, 100 for the year 2017, 120 for the year 2018, 90 for the year 2019, 95 for the year 2020, 134 for the year 2021, and 148 for the year 2022.

The descriptive statistic tables and test results obtained from SPSS (Ver. 25) are as presented:

Table 1: Descriptive Statistics

Recorded No. of fraud cases

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
With WBM	10	64.50	6.276	1.985	60.01	68.99	55	75
No WBM	10	108.00	20.116	6.361	93.61	122.39	88	148
Total	20	86.25	26.614	5.951	73.79	98.71	55	148

The above table 1 displays very useful descriptive statistics such as mean, standard deviation, and 95% confidence interval, for each distinct group – “With WB-S” and “Without WB-S.” The first group (With WB-S) produced the mean of 64.50, and a standard deviation of 6.276; whereas, the second group (Without WB-S) has 108.00 as mean, and 20.116 as standard deviation.

Table 2: ANOVA

Recorded No. of fraud cases

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	9461.250	1	9461.250	42.613	.000
Within Groups	3996.500	18	222.028		
Total	13457.750	19			

Table 2 produces a significant value of .000 (i.e., $p = 0.000$). This value is below 0.05, therefore providing a statistical evidence of a significant difference in the mean of recorded number of fraud cases in the 10 companies with “With WB-S,” with that of 10 companies “Without WB-S.” Note that, in the above analysis, *Turkey Post hoc test (Turkey HSD)*, widelyutilized for multiple comparison, was not performed because the data was only for “With WB-S” and “Without WB-S” groups; few than three groups.

Decision:

There was evidence of a statistically significant difference between the “With WB-S” and “Without WB-S” - as determined by the above ANOVA results in Table 2 above ($F(1,18) = 42.613, P = 0.00$). As such, this research reject the null hypothesis (H_0), and accept the alternative hypothesis (H_1) that: *There is a significant relationship between an effective WB-S and fraud prevention.*

3.3.2 HYPOTHESIS TWO

H_0 : *Protection of whistle blowers, who disclose reasonable and genuine matters of improprieties/fraud in Nigeria, against reprisal and victimization is inadequate.*

The data applied for this test, is that obtained from the responses of respondents from only one group - the 10 incorporated companies with a formal and well-structured WB-S (With WB-S), on if there are significant and adequate protection against reprisal and victimization of employees and/or third parties who disclose reasonable and genuine matters of improprieties/fraud in Nigeria. The choice of only one group (With WB-S) is borne out of the research’s assumption that this group of companies, with a well instituted and communicated whistle blowing policy and system, makes their employees more knowledgeable about whistle blowing, and if there are adequate mechanisms in place for the protection of participants. The data obtained from this group of respondents are best presented in *figure 3* below:

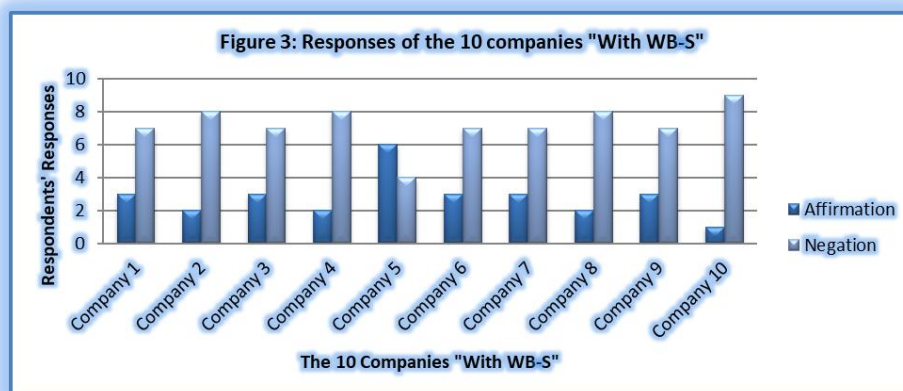


Figure 3 above shows that company 1 -10 affirmed that there are significant and adequate protection against reprisal and victimization of employees and/or third parties who disclose reasonable and genuine matters of improprieties/fraud in Nigeria but only in the following percentage: 30%, 20%, 30%, 20%, 60%, 30%, 30%, 20%, 30%, and 10%, respectively. Whereas 70%, 80%, 70%, 80%, 40%, 70%, 70%, 80%, 70%, 90% of the respondents thinks otherwise.

The descriptive statistic tables and test results obtained from SPSS (Ver. 25) are as presented:

Table 3: Case Processing Summary

	Cases		Missing		Total	
	Valid	Percent	N	Percent	N	Percent
Affirmative_Responses	*10	100.0%	0	0.0%	10	100.0%
Negative_Responses						

Table 3 depicts the total case for this test – the ten incorporated companies in Nigeria “With WB-S”.

Table 4: Affirmative_Responses * Negative_Responses Crosstabulation

			Negative_Responses				Total
			NO	NO	NO	NO	
Affirmative_Responses	YES	Count	0	0	0	1	1
		Expected Count	.1	.5	.3	.1	1.0
	YES	Count	0	0	3	0	3
		Expected Count	.3	1.5	.9	.3	3.0
	YES	Count	0	5	0	0	5
		Expected Count	.5	2.5	1.5	.5	5.0
	YES	Count	1	0	0	0	1
		Expected Count	.1	.5	.3	.1	1.0
Total		Count	1	5	3	1	10
		Expected Count	1.0	5.0	3.0	1.0	10.0

Table 4 is a cross-tabulation table that has revealed that higher number of the respondents chose a negative option (response) to the questionnaire.

Table 5: Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	30.000 ^a	9	.000
Likelihood Ratio	23.366	9	.005
Linear-by-Linear Association	9.000	1	.003
N of Valid Cases	10		

a. 16 cells (100.0%) have expected count less than 5. The minimum expected count is .10.

This Table 5 gave the value of the Pearson Chi Square $X(1) = 30.000$, and the Asymptotic Significance (2-sided) $p = .000$. This shows a no significant association between the affirmative responses and the negative responses.

Table 6: Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	1.732	.000
	Cramer's V	1.000	.000
N of Valid Cases		10	

Table 6 - Symmetric Measures (Phi and Cramer's V) - are both tests of effect size, or measure of association. The respective values of Phi and Cramer's V (1.732 and 1.000), being greater than the approximate significance value (.000), tells that the effect size or strength of association of the variables in the test is very strong.

Decision:

The Chi Square Tests on table 5 displays that the Chi Square Statistics is 30.000. P-value (Asymptotic Significant (2-sided)) is also given to be .000, and this appears to be less than the designated and standard alpha level of .05, pointing to the significance of the test result. Thus, this research then rejects the alternative hypothesis, and accepts the null hypothesis that states that: “Protection of whistle blowers, who disclose reasonable and genuine matters of improprieties/fraud in Nigeria, against reprisal and victimization, is inadequate.”

4.0 FINDINGS AND CONCLUSION

The literature reviewed and the various tests have given the research evidences and findings on which to conclude on the following:

- That $(F(1,18) = 42.613, P = .00)$ established the existence of a significant relationship between WB-S and fraud prevention. Giving the research a premise to conclude that an effective implementation of WB-S in companies would significantly impact in fraud prevention; and

- That whistle blowers from companies, particularly in Nigeria, who disclose reasonable and genuine matter of fraud and other improprieties, do not enjoy an adequate and significant protection against reprisal and victimization.

5.0 CONTRIBUTION AND RECOMMENDATION

The major contribution of this study to the existing body of knowledge is the proposition of a model for the protection of whistle blowers. Figure 4 below summarizes the suggested model:

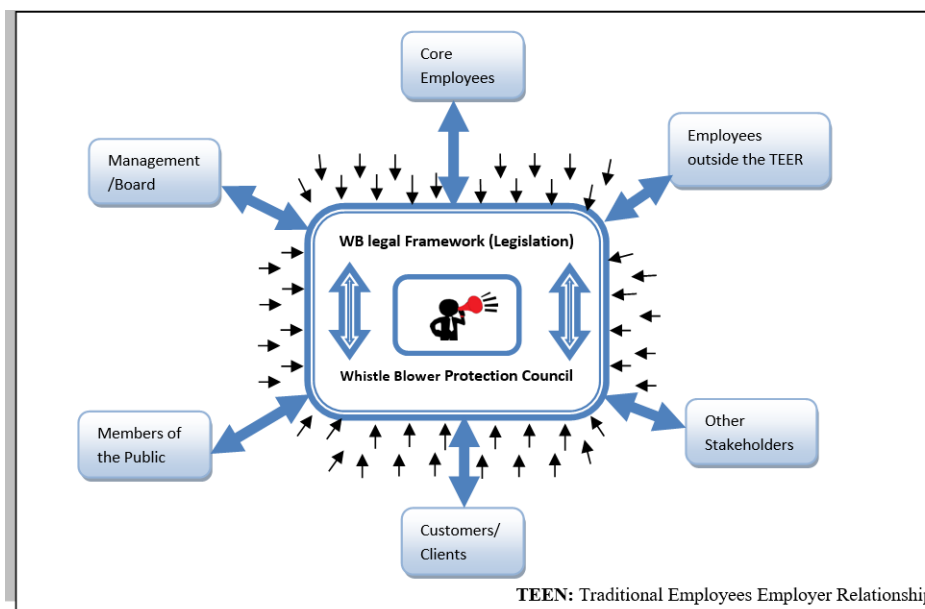



Figure 4: Researchers' Suggested Model for the protection of Whistle blowers.

The model suggests that a whistle blower could be from any of the following: former employees, employees outside the traditional employees-employer relationship, Customers/Clients, Management, Board of Directors, other Stakeholders, and Members of the Public; likewise could their attackers emanate from.

The arrows ↗ represent the arrays of multi directional reprisal or retaliatory attacks targeted at whistle blowers . But the dual boards of a single, comprehensive legal framework and the establishment of a Whistle Blower Protective Council (WBPC) would serve as protective shields across the whistle blowers. The modus operandi of these two proposed components is discussed below:

A. Developing one Single and Comprehensive WB Legal Framework (Legislation).

As aforementioned, existing legal frameworks are fragmented, and virtually cover whistle blowers within the formal circle alone; often leaving out persons outside the *Traditional Employee-Employer Relationship (TEER)*, such as consultants, informal or casual workers, and contractors or suppliers outside this relationship. This proposed framework would capture both sets of individuals.

Additionally, most of the existing legislations are found to require whistle blowers to report perceived fraud and other improprieties to enforcement authorities, without such making adequate and effective provision for real protection of these whistle blowers against any form of retaliation or reprisal. This explains why this research's model is proposing the development of a single and comprehensive WB legal framework that could be applicable and enforceable for all countries of the globe. This framework would, among others, provide sufficient protections for whistle blowers; and adequate compensation for those who would, after the investigations, end up being wrongly accused, since whistle blowers who report in good faith, do so with little or no evidences with them.

However, even when we succeed putting up a single, global, and comprehensive legislation and legal framework for whistle blowers protection, its enforcement could remain a bane. This explains the model's recommendation for the establishment of a Whistle Blower Protection Council (WBPC).

B. The Establishment of a Whistle Blower Protection Council (WBPC).

WBPC would be an independent global body, with sufficient autonomy, and saddled with the main duty of promoting and protecting the interest of whistle blowers against any form of attack, abuse, *ostracization*, victimization, *et cetera*, across the globe.

Specifically, it would be empowered, among others, to:

- Enforce all provisions in the legal frameworks geared at protecting whistle blowers;
- Provide speedy redress to whistle blowers' complaints; and

- End unscrupulous victimization of whistle blowers, and champion their interest at all time, and at all forum.

This proposition for the creation of WBPC in the model arises chiefly because of the finding of this research, that, there are still non-existing, and/or inadequate, fragmented, and weakly enforced WB legislations across many countries of the world.

DECLARATION OF COMPETING INTEREST

The authors declare that there are no known competing interests that could have appeared in any way to influence the results or reports of this research – in part or whole.

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