# The Effect of Social and Regulatory forces on Voluntary Restatement of Earnings: Evidence from Nigerian Logistics Firms

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**Abstract:** This paper examines the factors motivating firms to voluntarily disclose past wrongdoings and restate earnings aided by the imposition of social and regulatory forces. We incorporate the data of 80 listed firms on the Nigerian Stock Exchange (NSE) from 2008-2018 using 800 observations. Our results support the decision for the voluntary disclosure of past wrongdoings and restatement of earnings. However, the results are positive when informal social forces act to encourage firms to restate earnings and negative when formal forces like regulatory bodies act to forcefully restate the earnings. The results are consistent with our hypothesis and serve as the basis for further research in this area.

**Keywords:** Voluntary Disclosure; Voluntary Restatement; Formal Forces; Informal Forces; Corporate Governance; Evidence from Nigerian Logistics Firms; Social and Regulatory forces; Voluntary Restatement of Earnings; Supply Chain;

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## 1.Introduction

The practice of earnings management and accounting fraud is an enduring issue of corporate governance and it has become a pressing concern around the world. The activity of restating the reported earnings has been undoubtedly increasing during the last decade (Harris et al., 2017), which provides a negative impact on the shareholders as it appears that firms have manipulated the reported earnings. Thus, for the purpose of legal legitimacy, firms have had to restate their earnings (Campbell & Yeung 2017). Over the period 1997 to 2001 the quantum of restated earnings has resulted in losses of more than $200 billion in the US, as reported by the US General Accounting Office (GAO), approximately 10% was accounted for the public sector. The impact of financial restatement during 1998 to 2001 was three times higher than the same restatement over the period 1994 to 1997 (Chen et al., 2016). Furthermore, during 2002 to 2005 the reported losses due to restatement in market capitalization terms amounted to approximately USD36 billion. Enron, one of the biggest energy companies in America, reported losses of more than US$600 million in the third quarter of 2001. Following this, they announced that they had to restate their earnings for last few years (Chen et al., 2019). This resulted in the drop of their share value from US$90 per share to only few cents. There are many reasons for earnings restatement, however, when fraudulent behavior is involved, then the adequacy of corporate governance must be questioned.

Furthermore, if the firm is found guilty of wrongful activities, then the repercussions may not only be in terms of financial losses but also damage the reputation of the firm (Sadiq et al., 2019). Usually in these cases, prosecutions are based on class-action lawsuits aimed at the corporation and their management. Prior research shows that there is a nexus between corporate governance practices and the activity of financial restatement (BenYoussef & Khan 2018). Other research found different ownership structures to be the cause of corporate scandals leading to incidents of restatement. However, good corporate governance is considered as a mechanism to safeguard shareholders in order to protect their wealth and mitigate agency problems. Since managers do not always make decisions in the best interest of shareholders, they have incentives to expropriate firm decisions in such a way that benefit themselves rather than the shareholders (Sadiq & Othman, 2017). Moreover, these decisions which are taken at the expense of shareholders' wealth are generally referred to as the moral hazard problem (Saleem, 2016). Good corporate governance is the key to ensure that management is acting in accordance with shareholders' interest. Therefore, management activities can be scrutinized and monitored by good corporate governance practices.

The regulatory and cultural framework of every country is different, which is mainly derived from the dominancy of ownership patterns existing in the country. In contrast to developed countries, Nigeria has a unique obligation for listed companies as it requires minimum 25% public ownership (Somuyiwa et al., 2015). Regulators worldwide are concerned about improving corporate governance standards to ensure the effective implementation of the standards by public listed entities. In the aftermath of accounting scandals, good corporate governance mechanisms have been identified as a deterrent against accounting frauds and the need to avoid restatement. It is a general assumption that earnings manipulation occurs due to ineffective corporate governance practices, which permits the accounting fraud in the marketplace (Zandi et al., 2019). However, accounting fraud may be the result of both formal and informal external sources. For instance, legal sanctions are one of the formal sources mitigating accounting frauds including allegations against top management, criminal and civil charges, company bankruptcy, and dissolution of the firm (McDonnell & King 2018). The Sarbanes-Oxley Act 2002 required that financial statements be approved by both the CEO and CFO in order to make senior management responsible for their accuracy. The objective of the Sarbanes-Oxley Act 2002 was to increase the confidence of shareholders by ensuring that the financial reports were signed off and approved by the senior management of companies. However, corporate malfeasance cannot be prevented wholly by regulatory sanctions alone since they are very costly measures (McDonnell & King 2018). Estimates by economists found implementation costs associated with the provisions of Sarbanes-Oxley in 2005 to be around USD$1.4 trillion. Furthermore, industry sources identified that firms must dedicate in excess of 20,000-man hours just to fulfill the compliance requirements (Harris et al., 2018).

Another way of improving corporate malfeasance is based on informal social sources which involves the norms and ethical practices of the market. Markets have implicit expectations of ethical behavior and violators who misbehave can expect sanctions including the withholding of legitimacy. These kinds of social pressures act to discourage firms from engaging in illegitimate business practices (Pozner et al., 2018) and were found to be more effective in encouraging firms to conform accordingly (Almond & van Erp 2018).

The purpose of this study is to examine the effects of formal and informal external forces on voluntary disclosures of wrongdoing and earnings restatement in the light of Nigerian logistics firms. It is argued that firms restate the earnings voluntarily when they feel that the disclosures are necessary and in accordance with prior practices of industry leaders or network members in similar circumstances. Moreover, formal sanctions negatively impact the reputation of the firm and taint the voluntary disclosures as a malfeasance. Hence, the effects of both formal and informal forces affect the status and reputation of firms in different ways.

## 2. Literature Review

### 2.1 Disclosure of malfeasance

Malfeasance regulations put forward the idea of doing things in a socially attractive way and avoiding socially unattractive methods in order to promote the sustainable economy (Reurink, 2018; Sharman, 2011; Tillman, 2009). These practices are widespread around the world. The most common methods of earnings manipulation in the corporate world include earnings management, earnings smoothing and specific types of fraudulent behavior (Sadiq et al., 2019). The flexibility in accounting standards allow managers to get involved in earnings management techniques, some of them using real earnings management methods, others utilizing accruals earnings management methods in order to manipulate earnings (Sadiq & Othman, 2017). These methods provide them the opportunity to engage in earnings management practices on a regular basis, but this may lead to the conviction for fraudulent behavior of the firm (Koch-Bayram & Wernicke, 2018).

This study used the term voluntary disclosure of wrongdoings to reflect the upbringing with respect to the sociological and legal aspects of the Nigeria. This study considered the voluntary disclosure of wrong doings as voluntary restatement, which is commonly considered as a manipulation or fraudulent act (Lungeanu et al., 2018). Thus, voluntary disclosure is defined as the mandatory disclosure provided by the firm in the form of information on quarterly or annually bases in order to fulfil the requirement of regulatory bodies. However, from an accounting point of view, voluntary disclosure is positive as it reduces information asymmetry which helps in mitigating agency problems. It also assists in building positive relationships with stakeholders and ultimately enhances the firm's performance.

### 2.2 Voluntary disclosure of malfeasance

Stakeholders suffer the consequences arising from the negative impact of companies' reputations even if they voluntarily disclose the wrongdoings. Consequently, managers must face the negative effects of restating earnings because it arises largely from their decisions. The market value of the firm is significantly affected by the restatement as they must face potential losses in the stock market. It could be more problematic for the firm, if the managers come forward to accept their past wrongdoings in the hope of getting leniency for the possible punishment. The other alternative is to remain silent and wait in the hope that their wrongdoings may go unnoticed. Previous studies found that, it is better to disclose the wrongdoing voluntarily instead of hiding as it may be an effective strategy to mitigate the punishment and potentially cause lesser damage to the firm's reputation (Lowe & Wallace 2017).

However, an earlier study found that the stock value of those firms who accept responsibility for their wrongdoings, voluntarily disclose it, and attempt to remedy the earlier negative actions may result in outperforming the stock value of those firms who are reluctant to take any responsibility for their own wrongdoings (Wu et al., 2016). Moreover, stakeholders are also sympathetic towards those companies who voluntarily disclose their previous wrongdoings and are seen more favorably when compared to those who are caught by regulatory bodies for their misconduct. An example of the latter include Exxon Mobil, one of the world's largest oil and gas companies who failed to take responsibility for the Valdez oil spill and instead tried to switch the blame upon the captain of the ship and even on the state of Alaska for purposely delaying the environmental legislation (Vasilescu & Wisniewski 2019). On the other hand, Texaco a subsidiary of Chevron

Corporation known for trading in fuel, disclosed its wrongdoing related to racial discrimination and quickly invoked the appropriate social sanctions to correct the misconduct of its executive. This honesty on the part of Texaco initially had a negative impact on their reputation, but in the long run it led other companies to readily promote disclosures and accept the responsibility. This in turn led to Texaco becoming an icon for employee relationships within a short period of time. Thus, it may be unappealing in the short run to voluntarily disclose wrongdoings for violators, it may be more beneficial in the long run for offenders to minimize their losses and mitigate any potential damage to the firm's reputation (Deephouse et al., 2017).

### 2.3 Impact of voluntary disclosure on formal and informal forces

The voluntarily disclosure of wrongdoings is often seen as a good act in the eyes of society and for the firm as well. If so, why do external forces try to exert their influence to preempt the voluntary disclosure of wrongdoing? Why do they exert their influence to preempt any likelihood of earnings restatement? This debate between sociological and scholars have been going on for decades in order to preempt the imposition of formal legal sanctions, informal social forces act to self-regulate the firm's behavior. Previous empirical studies compared these two forces and concluded that firms involved in environmental degradation should confine their wrongdoings by self-regulation (Earnhart & Glicksman 2015). The objective of our study is to develop and test the theory with the aim of highlighting the effect of informal social pressures and formal legal sanctions on voluntary disclosures of wrong doings and the willingness to restate earnings.

### 2.4 Impact of voluntary disclosure on informal social forces

Informal social forces include institutional social rules, socially driven market practices and industry norms, that may become the self-imposed constraints for firm decision making and governance systems (Gilson et al., 2018). Therefore, industry leaders, peers and social networks may exert informal pressures on the firm in order to disclose any previous malfeasance. This may create unease for firms as it is not an easy decision to disclose any former transgressions in front of the world even when the firm coming forward to do so, does so with pure intentions. In this situation, firms are guided by other industry or network members as to how they dealt with similar issues.

It is generally assumed that informal social forces driven by industry self-regulation support the idea of self-policing in order to promote voluntary disclosures. It is argued by scholars and industry advocates that systems of justice which are often constrained by time and resources, lack the ability to control corporate behavior without being considered intrusive and ineffective. On the other hand, informal industry led self-regulation is considered the better option as firms are more aware of their improper activities than the regulators hence, are able to establish industry norms and practices that are similar to formal laws with the aim of fulfilling the compliance requirements (Alvarado et al., 2019). The whole objective of establishing informal social practices to align with the requirement of regulators is to avoid legal sanctions. In order to make them act properly, network members exert strong pressure on firms who are involved in misconduct and influence them to act appropriately (Yeager, 2016). Informal social forces approach those firms who are interested in maintaining both their legitimacy as well as their stakeholders' confidence. Our research objective is to examine the reaction of peers, industry leaders and network connections when firms willingly restate their earnings.

Industry leaders and peers support firms morally and limit other members to behave appropriately as uncertainty can result from voluntary disclosures and it is often difficult to determine the best course of action. The consequences of voluntary disclosure of wrongdoings may affect the performance of firms. Consequently, it damages the legitimacy of the firm by hiding any information that impacts negatively on the reputation of the firm, which may result in lawsuits. In this scenario, firms face threats from competitors as they can jeopardize the firm's market share in every regard. Previous studies demonstrate that in these situations, firms should follow the market leader or any successful firm that went through this situation earlier (Pozner et al., 2018). These types of firms are called industry performance leaders and size leaders respectively. This practice has become common and socially acceptable across the world in order to disclose malfeasance.

Likewise, infant or small firms try to follow market leaders or firms whose actions plays the role of bandwagon in order to stay and compete in the market. Prior research observed that firms are willing to follow market trends. For instance, when one leading firm has an investment banker than all the other members in the peer group also do so in order to maintain their standing. Similarly, when industry leaders come forward or most of the firms in the industry voluntarily accept their wrongdoings, then others are likely to do so as well. Therefore, based on our literature our hypotheses are:

Hypothesis (H1): The practice of industry performance leaders to voluntarily restate their earnings motivates others to restate their earnings if any wrongdoing was recorded in their financial statements.

Hypothesis (H2): The practice of industry size leaders to voluntarily restate their earnings motivates others to restate their earnings if any wrongdoing was recorded in their financial statements.

Hypothesis (H3): The more the previous recorded instances of restating in the industry, the more firms feel comfortable to voluntarily restate their earnings.

The decision making of market leaders influence both network members and their governance systems to align with each other. This nexus plays the role of bridging the network members and enables them to develop social relations. It also provides a platform to develop and spread the social norms, values, and procedures to align with the corporate law and regulatory standards and forces the network members to act accordingly. Previous studies found that network members came forward to adopt the norms and values unanimously (Dharwadkar et al., 2016). Moreover, it cannot be assumed that the restatement of earnings happens purely because of the potential economic benefits as this behavior can also be influenced by the network members. The acceptability criteria for network members is not only addressed by the leaders or peers but could be communicated by different intermediaries. Hence, our new hypothesis that accounting firms play a major role to fill the gap as an intermediary among the industry players by promoting new industry practices particularly those related to restatements. Therefore, our hypotheses are:

Hypothesis (H4): The likelihood of restating earnings in the network is increased if a member in the group has voluntarily practiced this before.

Hypothesis (H5): The greater the number of forced earnings restatements, the greater the negative impact on firms who are willing to restate their earnings.

Hypothesis (H6): The relationship between informal forces and willingness to voluntarily restate its earnings impacts the status of the firm. A positive relation increases the status and negative relation decreases the status.

## 3.Methodology

### 3.1 Sample Data

This study required a board range of data in order to test hypotheses. This data belongs to different non-financial business industries, registered on the Nigerian Stock Exchange. This data only comprises of the non-financial industries including manufacturing, servicing and trading; and does not include the data of financial institutions because it does not fulfill the requirement of empirical analysis. We exclude the data of the firms whose core data is missing for example total assets, total debt, total sales, etc. However, the sample data belongs to 80 firms listed on the Nigerian Stock Exchange (NSE) during the period of 2008 to 2018. There are more than 1,000 companies listed on the NSE. We selected 80 listed companies that belong to the different industry sectors along with the observation of 800. Therefore, our data include different sizes of firms and larger in population as compared to firms generally operating in Nigeria. It is generally observed by the researchers that smaller firms tend to more easily restate their earnings as compared to the larger firms. Our sample is quite specific for this research and firms are scrutinized on the bases of need or requirement.

The difference between voluntary restated and the rest of the firms are measured by t-test. Size of the firm test by (assets (t = 1_43, p > _ 0_16)), firm population (t = -0_04, p > 0_96), financial stability (return on sale _t = -0._15, p > 0_92), firms' debt (t = -0_12, p > 0_93), and overall firms strength (Altman's Z-score (1968) (t = 1_12, p > 0_28)). There is no significant difference between restated firms and rest of the firms.

### 3.2 Dependent variable

The dependent variable of this study is the voluntary disclosure of wrongdoings. The determinant criteria of disclosure are based on the restating of earnings each year. Consequences of previous evidences we assume that all the firms in the sample are reluctant to restate their earnings as regulatory non-compliance and earnings management practices may lead to legal action if it disclosed (Ascher et al., 2018). However, the regulator's compliance requirement restricts the firm to involve in aggressive accounting practices and they are larger in number. Therefore, our results of voluntary restatement in the light of external forces would be conservative.

### 3.3 Independent variable

Our independent variables are used to examine the role of formal and informal external forces while the firm willing to restate its earnings voluntarily.

***3.3.1 Informal Leader Forces:*** Congruent with the previous studies (e.g., Haveman 1993, Haunschild 1994), leaders can be measured by the performance and size of the firm in the industry. *Performance leader* is measured using dummy or indicator variable, indicating 1 if a firm is greater in return on assets (ROA) and 0 otherwise. And restated earnings voluntarily in the previous year. In addition, *size leader* is measured using indicator variable, indicating 1 if a firm is greater in total assets and restated earnings voluntarily in the previous year, and 0 otherwise.

***3.3.2 Informal Peer Forces:*** In line with the previous literature (Guillen, 2002; Haveman, 1993), peer forces variable is measured on the bases of voluntary disclosures count in an industry in the previous period. It is an informal way of disclosing the firms' wrongdoings voluntarily in each industry and it is easily operationalized when number of firms previously did the same in the given industry.

***3.3.3 Informal Network Connection:*** Intermediaries are considered as the informal network connection that connect the firm indirectly by transferring the information. Intermediaries also help to facilitate the process of diffusing ideal behavior. Informal Network Connection is measured using an indicator variable, indicating 1 if another firm in the industry, previously restated earnings voluntarily and shared the same auditor with the firm in the previous year. This measure is like the measures of social network studies in which behavioral similarities combine the firms and manage to achieve the behavioral expectation with the help of advisors and consultants.

***3.3.4 Formal regulatory forces:*** induce the firms to comply with standards and laws in order to avoid the legal sanctions (Stanley, 2015). These forces may have negative impact on voluntary behavior of disclosure. In this study, formal regulatory pressure to restate earnings is measured by the count of firms that restated their earnings in prior year specifically in the given industry on the orders of security exchange commission.

***3.3.5 Status*** of the firm in the industry is denoted by rank. Rank of the firm is measured by the number of employees in a firm with respect to the other members in the industry. It is also similar with the size variable and used in many studies previously in order to determine the status of the firm. This variable considers the rank 1 for the firms which have the fewest number of employees and rank n for the firms which have the largest number of employees, where n equals to the total number of employees in the industry.

### 3.4 Control Variable

There are other factors that influence the decision of restating earnings either on individual level or firm level. However, this research is different from research related to restatement of earnings as it is mainly focus on the restatement of earnings voluntarily. Congruent with the previous studies (Sadiq et al., 2019; Zandi et al., 2019) this study controls the intrafirm indicators in order to restate the financial earnings. Hence, we use the same variable to control the pressure generated from informal or formal forces and above and beyond the intrafirm influences namely, executive remuneration, audit committee meetings, firm size, firm debt, firm performance and multiple restated firms. Details of these variables are given below:

**Executive Remuneration** = Ratio of total compensation of top management including salary, bonuses, share options and commissions.

**Audit meetings** = Number of meetings conducted by audit committee during whole year.

**Firm size** = Measure of total assets of the firms.

**Firm debt** = Ratio of long-term liability to asset.

**Firm performance** = Firm performance measured by return on asset.

**Multiple restated** = second restatement in a year coded 1, prior to it receive 0.

### 3.5 Research Method

The hypotheses are tested by Cox proportional hazard regression model. The (Cox 1972) model claimed that the hazard rate for the subject in the data d:

$$k\left(\frac{h}{x_f}\right) = k_0(t)exp\ (x_f\beta_X)$$

Where $\beta_x$ are the coefficients of regression and x is a vector of independent variable (Cleves et al. 2004). This model is generally well known to estimate the timing and probability of an event (Yang & Aldrich 2017). By using this model, we measure the consequences of voluntarily disclosure of wrongdoings and restated of earnings importantly related to social and regulatory external forces. Cox models make no assumptions about the shape of hazard based on time as it is not the parametric hazard model (Gomulya & Boeker 2016). The analysis of longitudinal data need flexibility in restriction in order to make the hazard shape assumption. Therefore, the Cox model provides regression coefficient based on conservative test. Unlike other models that may twist the results of hazard rate and does not reflect the right picture if the shape of hazard curve turns out to be wrong. The best quality of Cox model is that it can handle large sample studies even with the censored observation and produce the high-quality results. Finally, Cox model can use time varying covariates to allow the serial correlation. In addition, our sample data based on pooled time series with continuous measure, therefore we can have multiple observation of a single firm that are dependent on time limit.

## 4. Results

### 4.1 Correlation Analysis

Table 1 contain the results of correlation analysis of the variables used in this study. Voluntarily disclosure has a positive correlation with all the other variables except firm for size and firm performance with the coefficient being -0.03 and -0.044 respectively, suggesting that large firm and good performing firms are less likely to have disclosure issues**.** Consistent with the expectation, the correlation between performance leaders, size leaders, peer leaders and shared auditor is significantly and positively correlated with the voluntary disclosures, suggesting that these variables forced firms to voluntary restate the earnings and improve transparency.

**Table 1 Correlation**

| **Variables** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Volunteer | 1 | | | | | | | | | | | |
| Performance Leaders | 0.108* | 1 | | | | | | | | | | |
| Size Leaders | 0.167* | 0.207* | 1 | | | | | | | | | |
| Peer Restaters | 0.145* | 0.147** | 0.089* | 1 | | | | | | | | |
| Shared Auditor | 0.092** | 0.03** | 0.124* | 0.098* | 1 | | | | | | | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Forced Restaters | 0.008 | -0.009 | -0.007 | 0.246* | 0.102** | 1 | | | | | | |
| Status | 0.006 | -0.003 | 0.051* | 0.128* | 0.241** | 0.185* | 1 | | | | | |
| Executive Remuneration | 0.011* | 0.009 | 0.099* | 0.209** | 0.202** | 0.192** | 0.232** | 1 | | | | |
| Audit Meetings | 0.089** | 0.01 | 0.142* | 0.114* | 0.092* | 0.046 | 0.169** | 0.031** | 1 | | | |
| Firm Size | -0.003 | 0.006 | 0.001 | -0.014 | 0.017 | 0.029 | 0.261** | 0.013 | 0.015** | 1 | | |
| Firm Debt | 0.092 | 0.076 | 0.082 | -0.032 | 0.004 | 0.015 | 0.059* | -0.089* | 0.072** | 0.046** | 1 | |
| Firm performance | -0.044** | -0.081* | -0.032 | -0.109** | -0.132** | -0.116** | -0.024 | -0.082** | -0.214** | 0.009 | 0.005 | 1 |
| Multiple restated | 0.198** | 0.131* | 0.209** | 0.102* | 0.083* | 0.068* | 0.072* | 0.065* | 0.091* | 0.002 | 0.008 | 0.002 |

∗p<0_05; ∗∗p<0_01.

### 4.2 Regression Analysis

Below table 3 contain the results of Cox proportional hazard model (Hz). Column 1 to 6 of table 3 report the hazard ratios of each of the models. Column 1 (Hz1) refers to the effect of external forces with respect to the social and regulatory bodies voluntary disclosure of wrongdoing. Column 1 shows the result of H1 to H5. Whereas, columns 2 to 6 show the coefficients related to the various moderating effects of the firm status

The coefficients of these models are derived from hazard model, which require complex calculation based on logarithm. However, Hz values enable us to determine the nature of covariate in term of predicting voluntary restatement. The range of Hz starts from 0 to positive infinity and indicates the possibility of willingly restating earnings (Hz > 1). Therefore, coefficient 0 to 1 indicates the negative relation between dependent and independent variable. Hz greater than 1 indicate the positive relation between predictor and dependent variable. Hazard ratios between 0 and 1 indicates negative relationship between the independent and dependent variables. For instance, performance leaders that voluntarily earnings restatement in the previous year significantly increased the possibility of the firm voluntarily earnings restatement by more than three times Hz=3.25.

On the other hand, consistent with the hypothesis 5, various firms earlier forced for earnings restatement decrease the possibility of voluntary disclosure by 35.5% as Hz = 0.645. In line with the hypothesis 2, the relationship of voluntary restatement and size leaders are significantly positive, suggesting that size leaders increased the voluntary disclosure of earnings restatement as compared to prior year with the Hz value of 2.46. Further, the relationship of peer restates and voluntary restatement are significantly positive with the value of Hz = 1.22, indicating that peer restatement increases the likelihood of the voluntary restatement by 22 %, which is consistent with our hypothesis H3.

Moreover, the relationship of shared auditor and voluntary restated earnings are significantly positive with the coefficients of 4.12. The results support our hypothesis 4, which indicates that the earnings restatement seeing by other group members (audited by same auditor) increased the likelihood of voluntary disclosure by four times as compared to previous year. Our final hypothesis is related to the impact of formal and informal forces on the status of the firm. The independent variables performance and size leaders receive the negative impact from the increase in status of the firm with respect to the voluntary restatement of earnings. Lastly, the peer restatement also receives the negative impact from the status of the firm in term of voluntary restatement of earnings. Hence the industry leaders and peers are strongly resisted by the high-status firm to voluntarily restate earnings. However, the last moderating test of status related to shared auditor and forced restatement have no significance on the likelihood of voluntary restatement as mentioned in HR 5 and HR 6.

**Table 2 Regression Analysis**

| | **Variables** | HR 1 | HR 2 | HR 3 | HR 4 | HR 5 | HR 6 |
|---|---|---|---|---|---|---|---|
| | **Predictors$_{(t-1)}$** | | | | | | |
| H1 | Performance Leaders | 3.25** | 5.34** | 3.51** | 4.24** | 3.68** | 3.72** |
| H2 | Size Leaders | 2.46* | 3.38** | 6.64** | 4.02** | 3.92** | 4.18** |
| H3 | Peer Restaters | 1.22* | 1.34* | 1.13* | 2.14* | 1.43* | 1.45* |
| H4 | Shared Auditor | 4.12** | 6.42** | 7.26** | 8.19** | 5.04** | 7.09** |
| H5 | Forced Restaters | 0.645* | 0.77 | 0.68 | 0.82 | 0.75 | 0.69 |
| | **Interaction$_{(t-1)}$** | | | | | | |
| | **Status** | | 0.93 | 0.85 | 1.14 | 0.89* | 0.91* |
| H6 | Status-Performance Leader | | 0.78** | | | | |
| H6 | Status-Size Leader | | | 0.71* | | | |
| H6 | Status-Peer Restater | | | | 0.81** | | |
| H6 | Status-Shared Auditor | | | | | 1.00 | |
| H6 | Status-Forced Restater | | | | | | 1.00 |
| | **Control Variables** | | | | | | |
| | Executive Remuneration | 1.47 | 1.51 | 1.26 | 1.72 | 1.27 | 1.49 |
| | Audit Meetings | 1.31* | 1.45* | 126* | 1.53* | 1.35* | 1.34* |
| | Firm Size | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Firm Debt | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | Firm performance | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Multiple restated | 12.34** | 10.45** | 11.31** | 12.87** | 10.24** | 13.23** |

∗p<0_05; ∗∗p<0_01.

### 4.3 Robustness Test

We test the robustness of our sample with Huron's eight-industry classification and the results obtain by that are like our results. Moreover, we are quite thoughtful about the greater increase in the likelihood of restating earnings over the last few years in Nigeria. Therefore, we broke our sample into two periods; first is from 2008-2013 and second is from 2014-2018 and again run the data using Cox model and the results were similar with previous test. The analysis was run using the discrete event history technique along with the parametric hazard model. Moreover, we ran the repeated measure of logit and profit models with the robust estimator of variance instead of Cox model. However, we repeatedly received the strong results with discrete time event history techniques. Hence our results are robust under more conservative test and consistent with the results of Cox regression model.

## 5. Conclusion

In this study, we examine the attribute of restating earnings either voluntarily or forcefully and the impact of informal social forces and formal regulatory forces associated with it. Voluntary disclosure of malfeasance may be a difficult decision to take because it may badly hurt the firm's reputation in the short run, however over the longer term it may help to develop a healthier and trustworthy business environment. Prior researchers explained the reasons for white-collar crime to include factors such as firm culture, incentive package, weak corporate governance, poor ethical values of the firm, etc. These issues contributed to firms breaking the laws and getting involved in wrongful activities. Yet all the previous studies focused on the reasons for white collar crime that were internal issues and failed to examine the impact of external forces on white collar crimes or the way to restore the reputation of firms involved in illegal activities. We include the social informal forces as the proxy for independent variables like performance leader, size leader, peer restatement and shared auditor. The formal regulatory forces include the forced restatement by the firm upon the demand of regulators. Our dependent variable is the voluntary disclosure of malfeasance and restatement of financial earnings. All the independent variables are positively related to the dependent variable except for forced restatement of earnings which is negatively related to the voluntary disclosure and therefore consistent with our hypothesis. The findings of this research provide the basis for researchers interested in similar research related to voluntary restatement of earnings and the associated factors. This research provides the factors that encourage the voluntary restatement of earnings in order to rectify past wrong doings and enhance the governance structure.

## References


Alvarado, N. R., De Fuentes, P., & Laffarga, J. (2019). Do auditors mitigate earnings management during economic crisis? *Revista de Contabilidad-Spanish Accounting Review*, Vol.*22*, No.1, pp. 6-20.

Almond, P., & van Erp, J. (2018). Regulation and governance versus criminology: Disciplinary divides, intersections, and opportunities. *Regulation & Governance*, Vol.13, No.5, pp.657-678.

Ascher, D., Da Silva, W. V., Polowczyk, J., da Silva, E. D., & da Veiga, C. P. (2018). Neurostrategy: An Advance through the Paradigm Epistemological in Strategic Management. *Academy of Strategic Management Journal*, Vol.16, No,5, pp.355-367.

BenYoussef, N., & Khan, S. (2018). Timing of earnings restatements: CEO equity compensation and market reaction. *Accounting & Finance*, Vol.*58*, No.2, pp. 341-365.

Campbell, J. L., & Yeung, P. E. (2017). Earnings comparability, accounting similarities, and stock returns: Evidence from peer firms' earnings restatements. *Journal of Accounting, Auditing & Finance*, Vol.*32*, No. 4, pp. 480-509.

Chen, K. L., Chang, S. H., & Wang, T. S. (2016). Do Personnel Stability, Family Business and Auditor Influence Financial Restatement? *International Journal of Economics and Financial Issues*, Vol.*6*, No.1, pp. 245-251.

Chen, C., Leung, S. C., & Tao, X. (2019). The Impact of Financial Reporting Flexibility on Auditor Risk Judgment–Evidence from a Natural Experiment. *Xuedan, The Impact of Financial Reporting Flexibility on Auditor Risk Judgment–Evidence from a Natural Experiment (October 9, 2019)*.

Dharwadkar, R., Harris, D. G., Shi, L., & Zhou, N. (2016). Audit committee interlocks and the contagion of accrual-based and real earnings management. *Available at SSRN 2729855*.

Deephouse, D. L., Bundy, J., Tost, L. P., & Suchman, M. C. (2017). Organizational legitimacy: Six key questions. *The SAGE handbook of organizational institutionalism*, pp.27-54.

Earnhart, D., & Glicksman, R. L. (2015). Extent of Cooperative Enforcement: Effect of the Regulator-Regulated Facility Relationship on Audit Frequency.

Gilson, L., Orgill, M., Shroff, Z. C., & World Health Organization. (2018). *A health policy analysis reader: the politics of policy change in low-and middle-income countries*. World Health Organization.

Gomulya, D., & Boeker, W. (2016). Reassessing board member allegiance: CEO replacement following financial misconduct. *Strategic Management Journal*, Vol.*37*, No.9, pp. 1898-1918.

Harris, D. G., Shi, L., & Xie, H. (2018). Does benchmark-beating detect earnings management? Evidence from accounting irregularities. *Advances in accounting*, Vol.*41*, No,4, pp. 25-45.

Harris, P., Kinkela, K., Arnold, L. W., & Liu, M. (2017). Corporate Accounting Malfeasance and Financial Reporting Restatements in the Post-Sarbanes-Oxley Era. *Review of Business & Finance Studies*, Vol.*8*, No.1, pp. 41-48.

Koch-Bayram, I. F., & Wernicke, G. (2018). Drilled to obey? Ex-military CEOs and financial misconduct. *Strategic Management Journal*, Vol.*39*, No.11, pp. 2943-2964.

Lungeanu, R., Paruchuri, S., & Tsai, W. (2018). Stepping across for social approval: Ties to independent foundations' boards after financial restatement. *Strategic Management Journal*, Vol.*39*, No.4, pp. 1163-1187.

Lowe, T. S., & Wallace, M. (2017). Occupational Race Segregation, Globalization, and White Advantage: White-Black Earnings Inequality in US Metropolitan Areas. *Sociological Spectrum*, Vol.*37*, No.6, pp. 353-370.

McDonnell, M. H., & King, B. G. (2018). Order in the court: How firm status and reputation shape the outcomes of employment discrimination suits. *American Sociological Review*, Vol.*83*, No.1, pp. 61-87.

Pozner, J. E., Mohliver, A., & Moore, C. (2018). Shine a Light: How Firm Responses to Announcing Earnings Restatements Changed After Sarbanes–Oxley. *Journal of Business Ethics*, Vol. 23, No. pp. 1-17.

Reurink, A. (2018). Financial fraud: a literature review. *Journal of Economic Surveys*, Vol.*32*, No.5, pp. 1292-1325.

Sadiq, M., Othman, Z., & Ooi, C. K. (2019). A study of interaction effects of political influences and earnings management on organisational performance. *Asian Economic and Financial Review*, Vol.*9*, No.5, pp. 642-667.

Sadiq, M., Mohamad, S., & Kwong, W. C. G. (2019). Do CEO Incentives Mediate the Relationship between Political Influences and Financial Reporting Quality? *International Journal of Asian Social Science*, Vol.*9*, No.3, pp. 276-284.

Sadiq, M., & Othman, Z. (2017). Earnings manipulations in politically influenced firms. *Corporate Ownership & Control*, Vol.*15*, No.1, pp. 65-71.

Saleem Salem Alzoubi, E. (2016). Ownership structure and earnings management: evidence from Jordan. *International Journal of Accounting & Information Management*, Vol.*24*, No.2, pp. 135-161.

Sharman, J. C. (2011). Testing the global financial transparency regime. *International Studies Quarterly*, Vol.*55*, No.4, pp. 981-1001.

Somuyiwa Adebambo, O., Odepidan Omolola, M., & Dosunmu Victor, A. (2015). Impact of Logistics Outsourcing Services on Company Transport Cost in Selected Manufacturing Companies in South Western Nigeria. *European Journal of Logistics, Purchasing and Supply Chain Management*, Vol.*3*, No.4, pp. 30-41.

Stanley, B. W. (2015). Financial Statement Misreporting: Does Monitoring Matter? *International Review of Accounting, Banking & Finance*, Vol.*7*, No.1, pp. 367-378.

Tillman, R. (2009). Reputations and corporate malfeasance: collusive networks in financial statement fraud. *Crime, law, and social change*, Vol.*51*, No.3-4, pp. 365-382.

Vasilescu, C., & Wisniewski, T. P. (2019). Rebuilding a Shattered Reputation: Financial Reporting Quality and Donations Following Corporate Controversies. *Available at SSRN 3484818*.

Wu, P., Gao, L., Chen, Z., & Li, X. (2016). Managing reputation loss in China: in-depth analyses of financial restatements. *Chinese Management Studies*, Vol.*10*, No.2, pp. 312-345.

Yang, T., & Aldrich, H. E. (2017). "The liability of newness" revisited: Theoretical restatement and empirical testing in emergent organizations. *Social science research*, Vol.*63*, No.7, pp. 36-53.

Yeager, P. C. (2016). The elusive deterrence of corporate crime. *Criminology & Pub. Pol'y*, *15*, 439.

Zandi, G., Sadiq, M., & Mohamad, S. (2019). Big-four auditors and financial reporting quality: evidence from Pakistan. *Humanities & Social Sciences Reviews*, Vol.*7*, No.2, pp. 369-375.