Original Research Article

Corporate Fraud Tendencies Verses Initial Public Offerings (IPOs) Initial Returns Volatility

Abstract

We examine the initial returns volatility of initial public offering by determining: (1) whether mispricing actually takes place during and after IPOs in Nigeria and Sri Lanka; (2) whether the mispricing (overpricing or underpricing) could constitute corporate fraud tendencies since data to measure fraud in emerging markets of Nigeria and Sri Lanka is secretive and unattainable. We use dummy proxies from 1987-2012 and 1988-2012 for the Nigerian Stock Exchange and the Colombo Stock Exchange, respectively. The OLS and GARCH models show that fraud tendency via underpricing and overpricing is very prominent and highly pronounced in the Nigerian and the Sri Lankan markets as they seriously cause volatile returns during the first-day, monthly and yearly trading of the IPOs probably to satisfy the ego of corporate agents for "money left on the table" and/or "promise for future banking business".

Key words: IPOs, NSE, CSE, initial return volatility, corporate fraud tendencies, underpricing, overpricing, and mispricing.

I. Introduction

INITIAL PUBLIC OFFERINGS (hereafter, IPOs) have drawn significant attention by researchers in recent years because of uncountable accusations and counter blames in the stocks market owing to the frequent bubbles and corporate fall-outs of stocks, thereby rendering the capital market vulnerable to aggressive uncertainties and distrust. Of course the traditional stock's valuation asserts that, the value of a firm's stock is presented by its intrinsic value (present value) which is usually determined based on the firm's performance via its required rate of returns and the dividend it declares. In other words, if the market value is at par with the intrinsic value, we assert an appropriately valued stock; on the other hand, if the intrinsic value is

less than or more than the market price, we presume that the stock is mispriced via underpricing or overpricing, respectively. These happenings have being the trend of the stocks market and has never portend any ugly meaning to the market participants nor the regulatory bodies until in the 1980s to date when the capital markets around the world began experiencing extreme bubbles and recessions; most of which attracted and still attract severe investigations and enactment of serious regulatory laws to combat the artificial creation of these mishaps. Despite these measures, the incidents are still at their peaks going by the rates of bubbles and the sudden crash of most companies' stocks around the world.

Studies have indicated that, these mishaps are created artificially by corporate insiders such as the chief executive officers and their co-employees as well as underwriters and corporate investors. Ross (1976) assumes in his arbitrage pricing theory that to be able to prevent uncompromised exploitation of security mispricing, an assets expected returns must be a linear function of its sensitivity to those risk factors thereby debunking the presence of arbitrage opportunities present in efficient financial markets. Although the risk of systematic variables may not be easily eroded, that of diversifiable (firm-specific) risks along with noise trader[1] risk create costly obstacle to control as their behaviours are strictly associated to the firm's representatives. Baron (1982), Loughran and Ritter (2002, 2004) and Lowry and Schwert (2004) establish that there is a relationship between the underwriter and either managers or shareholders

[1] Noise traders in most cases act together to worsen the mispricing situation of IPOs; they are individual investors who are devoid of adequate information relating to the firm and so has little analysis of the firm's financial statements. Such instance could be generated by sentiments to either drive prices higher (bubble) or lower (recession).

of the issuing firms that pursue under-pricing and partial adjustment as a due to bargaining power, agency costs, implicit contracting, or issuer non-rationality capabilities. Povel, Singh and Winton (2007) on the other hand predict that the incidence of fraud is a function of investor believes about business conditions; such that it peaks when investors believe business conditions

are good, hence relax their motives to monitor intently the trends which in turn affects managerial fraud incentives. Several other assumptions are put forward by other researchers to explain these IPO fraud incidents which we critically perused in this paper.

The results are very robust from the various models adopted in analysing the first-day floating of the IPOs, the monthly sequence and the yearly sequence. We understand that the corporate fraud tendency variables (underpricing and overpricing) have very significant influence on IPOs initial returns in the NSE and CSE and thereby, reporting the expected relationships as their variability informs the volatility of the IPOs initial returns. In fact, the rate of volatility clustering is very high in the first-day, monthly and yearly results of the IPOs in both markets but the average initial returns is higher in the CSE during the first-day trading than NSE owing to the high rate of overpricing while it is lower in the NSE because of the high rate of underpricing. It is also very interesting to note that, special trends tend to happen immediately after the IPOs first-day such that the stocks face some waves of upward adjustment in the NSE while a downward adjustment becomes predominant in the CSE. We also discover that, dividends are less important to investors in the CSE on the annual basis except for first-day but it's very important to investors in the NSE in the annual trading. However, the result also show consistency with several studies and a clear display of stylized facts, likewise confirming that fraud is eminent during and after the IPO period running through a long period of more than three years causing persistent volatility.

We organise the remainder of the paper into six sections. We reviewed critical issues on underpricing and overpricing in section two. Section three frames out the hypothesis and the model specification while section four gives the data source; and section five the variables and methods of the study. Furthermore, section six presents the results and discussions and the conclusion of the paper in section seven.

II. Underpricing and Overpricing of IPOs as Proxies to Fraud

As earlier stated above, the intrinsic value of a firm's stock is a reflection of the value of the firm presented in the market. Hence, if it is not appropriately valued, then it must be mispriced and

such mispricing could be under or above the actual value in which the today's market could view it in different perspectives such as market strategy for information and patronage for subscription or as conceived in this paper – a fraud tendency. This brings us to the obvious need to understand the mechanics of IPOs returns volatility and its evidence; Since earnings are products of offer and selling prices, so that, a drastic fluctuation in the IPO's offer and market prices result into positive or negative variability of its returns. Consequent upon this understanding, the volatility of IPOs returns is engineered by either under/over pricing of the IPOs when consciously or unconsciously influenced by corporate fraud tendencies and other insider frauds. What is IPO underpricing and/or overpricing? Several definitions could be used. First, it can refer to 'issuing securities at an offer price set below/above true value of the security' (Brealey et al, 2001, pp. 398), meaning that the offer price of the IPO shares is significantly below its intrinsic value when there is underpricing and vice-versa. Second, underpricing could also mean the IPO 'shares are sold at a price below their current market price' (Gitman et al, 2002, pp. 401), which means that the market closing Price of the IPO shares on listing date is higher than the offer price.

Another meaning of underpricing could be 'a large positive gain to a new issue (relative to its offer price) immediately after listing' (Chan et al, 2003, pp. 2) which is significantly larger than the average returns of the other days. The above definitions could be correct since the market price always reflects the intrinsic value of the IPO stock hence the first day returns can only be generated from underpricing or overpricing the IPO offer price before listing. To illustrate this underpricing and overpricing as a relation to the intrinsic value of the IPO stock, Ma (2005) gives this illustrative diagram about the Chinese stock market pricing in a study of the Chinese first-day IPO returns from 1991-2003.

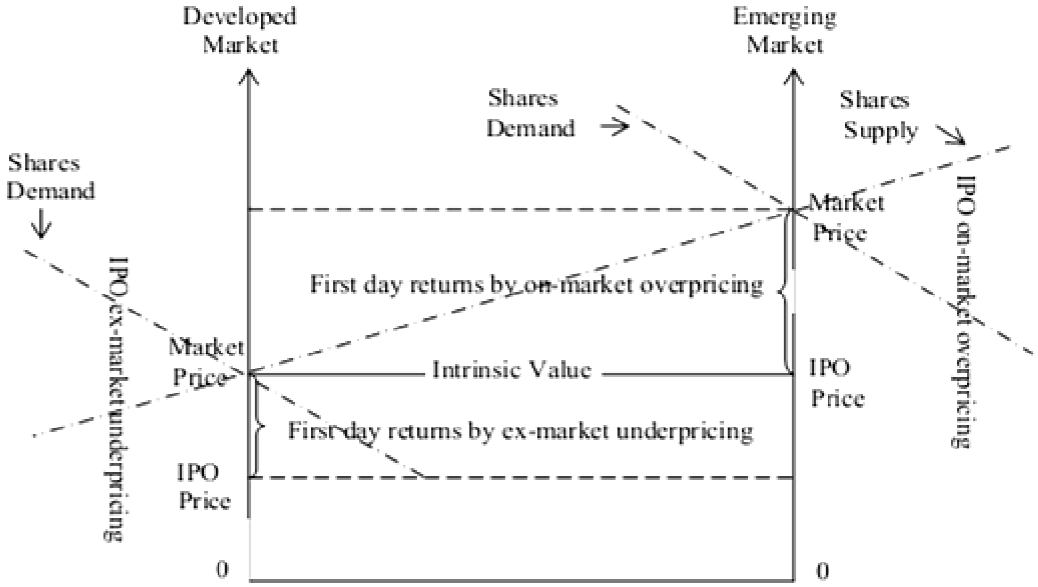

Figure 1: Underpricing and Overpricing of IPO Stocks

Ma observe the Chinese situation, going by the regulatory mechanisms for IPO pricing, and elaborates that if an IPO offer price is set at its intrinsic value, the first day returns can only be generated from overpricing IPO on the listing date. He calls this as IPO on-market overpricing. The right hand side of Figure-1 illustrates the first day returns generated by on-market overpricing. The first definition of IPO underpricing is explicitly in the category of ex-market underpricing. The second and third are ambiguous as they do not assume neither the offer price nor the market price as intrinsic value of the IPOs. Actually, an IPO underpricing represents either ex-market underpricing or on market overpricing, or a combination of both. Thus, the second and third definitions are more generally accepted.

Ma (2005) suppose that the high first-day returns of China's IPOs are generated for both ex-market underpricing and on-market overpricing, but most likely from on-market overpricing. First, the IPO pricing methods are uniformly formulised by the market regulator. Except for the regulator's strategy of underpricing if the regulator intends, there is little space for individual firm making a further underpricing. Second, the first-day returns are too large to attribute to the regulator's intention of underpricing.

Underpricing, measured by the initial return on the stock between the offer date and the first period of trading, varies considerably from one market to another with IPOs in emerging financial markets being more heavily underpriced than IPOs in industrialised markets. For instance, the average abnormal initial return for new issues in Britain and the U.S. tends to be around 15% (Levis, 1993 and Ibbotson et al, 1994), whereas in Malaysia and China IPOs are underpriced on average by an extraordinary 166.60% and 948.59% respectively (Dawson, 1987 and Su & Fleisher, 1997). Institutional and regulatory constraints and the differences in the characteristics of IPOs and parties involved are possible explanations as to the variation of underpricing across different markets (Loughran et al, 1994).

Islam, Ali and Ahmad (2010) study the Bangladesh IPOs and observe that while initial upward price movement of underpriced IPOs spreads favourable information, the available supply of shares is restricted because underwriters typically discourage initial subscribers from selling their allotments in the aftermarket. Investors who were unable to obtain their full subscriptions at the offering may seek to buy shares in the aftermarket, resulting in a sequence of daily positive returns. In the case of an overpriced issue, the first market price fails to reflect the available information because of price stabilization by the underwriting syndicate; such that, as the syndicates disband at varying times for the different IPOs, it leads to a gradual downward price adjustment on the average and sequential negative daily average cross-sectional returns over the short-run for overpriced IPOs. Such effects, they observed however, may be offset by incentives provided by the syndicate to induce informed promoters/traders to reveal their private information while the offering price is being set. For example, Benveniste and Spindt (1989) report that informed traders have an incentive to understate their interest in a new issue in the premarket, but underpricing induces them to be truthful in their indications of interest.

Furthermore, recent studies show that underpricing could be deliberately done by underwriters so as to benefit enormously. This is because, underwriters can allocate underpriced IPOs to investors in exchange for soft dollar commission business (Reuter, 2006; Loughran and Ritter, 2002, 2004; Nimalendran, et al, 2007; and Hoberg, 2007). Adding to these findings, Goldstein, et al (2011) estimate that an additional $1 excess commission payment to the lead underwriter results in IPO share allocations that generate $2.21 in investor gross profits, implying that 45% of the money left on the table is captured by the underwriter. Liu and Ritter (2010) add that,

underwriters can allocate underpriced IPOs to executives to sway their decision in choosing which investment banking firm to hire; this practice is called “IPO spinning”. Such avenue is created to help underwriters capture a larger portion of the money left on the table to partly offset benefits by using cost of excessive underpricing to lower gross spread revenue, which is typically seven cents for every dollar decrease in the offer price for moderate-sized U.S. IPOs (Liu & Ritter, 2012).

Mok and Hui (1998) find that underpricing A-shares in Shanghai is 289%. Su and Fleisher (1999) showed that the underpricing could exceed 948% if IPOs from earlier years were included in the sample. Much of the theoretical research on IPOs focuses on explaining IPO underpricing. Possible reasons for underpricing include self-interested investment bankers (Baron and Holmstrom, 1980; Baron, 1982), the “winner’s curse” (Rock, 1986), lawsuit avoidance (Tinic, 1988), signalling reasons (Allen and Faulhaber, 1989; Grinblatt and Hwang, 1989; Welch, 1989), market incompleteness (Mauer and Senbet, 1992), book-building (Benveniste and Spindt, 1989), and informational cascades (Welch, 1992). Evidence also suggests that in some countries IPO underpricing may be due to the regulatory environment (Loughran, Ritter, and Rydqvist, 1994), or because the allocation of IPO shares can be used as a bribe (fraud) (Wang et al, 2010; Ritter, 2004 etc).

Mispricing of IPOs exists almost in every capital market and could cause serious volatility over a very long period of time. Choi and Nam (1998) report that Australian Public IPOs are more volatile and under-priced than private sector IPOs. They found that, in general, over their sample of 30 countries, IPOs were more under-priced in public sector IPOs than private-sector IPOs. Studies on Malaysian new stock offers (e.g., Dawson, 1987; Yong, 1991, 1996; Sufar, 1987; Ismail et al., 1993; Yeap, 2006; Taufil, 2007) indicate significant returns received by investors at the time of initial listing. While studies on Bangladesh new stock offers (e.g., Islam, 1999; Haque & Musa, 2002), indicate existence of higher degree of underpricing; the analysis of the excess returns after trading began also reveals that the price adjusts rapidly to the underpricing of the initial offers. This result is consistent regardless of whether the amount of increase registered at the opening day is high or low, all things being equal. Another study on the listed securities at Shanghai and Shenzhen stock exchanges by Liu & Lie (2000) investigated 781 securities using 09-year data and found that on average market adjusted short run performance (return) was

139.4%. Their analyses reveal that the first day initial return was much higher in 1991, 1992 & 1993.

The degree of underpricing in Bangladesh capital market is rather higher compared to that of other Asian and advanced stock markets (Islam, Ali and Ahmad, 2010). Islam (1999) documents that the average initial returns are 116.01 percent with a standard deviation of 261.94 percent during 1994-1999. Consequently, Haque and Musa (2002) find that between 1994 and 2001 the IPOs of Dhaka Stock Exchange was largely underpriced at 285.21 percent. For the same time period, the degree of underpricing in Malaysia was 46.44% (Yeap, 2006), Singapore and Turkey 31.4% and 13.6%, respectively (Loughran et al., 2000). Better explained, in examining the factors affecting the volatility of IPO initial returns, Lowry, Officer and Schwert (2010) argued that the factors identified by Loughran and Ritter (2002, and 2004), and Ljungqvist and Wilhelm (2003) are not likely to be the primary drivers of the observed time-series patterns in initial returns. Their argument holds that, Loughran and Ritter (2002) argue that prospect theory can explain part of the underpricing seen in IPO markets; In effect, equity owners who see their wealth increase due to large increases in the secondary market stock price after an IPO do not feel too bad about the fact that they could have raised more money in the IPO by setting a higher IPO price. Of course, unless the post-IPO market price of the stock is higher than it would be if the IPO had not been underpriced, there is no connection between the high value of the stock and the loss associated with underpricing, so prospect theory implies irrational behaviour by the decision-makers of issuing firms.

However, Ljungqvist and Wilhelm (2003) argue that lower CEO ownership and smaller secondary components of IPOs in the late 1990s led to less sensitivity to IPO underpricing. They find some evidence that this factor explains part of the variation in underpricing in the 1999 to 2000 period. They also argue that directed allocations of underpriced IPOs to “friends and family” led to a desire for underpricing by the executives of firms undergoing IPOs. Loughran and Ritter (2004) suggest that during the IPO bubble period many issuers had objective functions that focused on things other than maximizing the proceeds from the IPO. In particular, they argue that decision-makers in the issuing firms sought payoffs from investment bankers in the form of allocations in the underpriced IPOs of other firms (“spinning”), so when their own firm went public they accepted underpricing as part of the quid pro quo exchange for the private

benefits they received as investors in the underpriced IPOs of other firms. They also argue that issuing firms became very interested in coverage of their firms by securities analysts during this period, and perceived that an underpriced IPO would provide incentives for the underwriting firms to provide such analyst coverage. The Economists (2002) made a release of "Spun Gold" that back in 1997, Robertson, a Silicon Valley Investment Bank was "spinning" IPO shares to executives who rewarded them with banking mandates prompted a SEC probe into the practice.

In a similar stance, Achua (2011) confirms that equity IPOs in the Nigerian stocks market are marginally underpriced by 4.9 percent and that IPOs are more underpriced in a regulated capital market; the ratio of IPO underpricing, normal pricing and overpricing is 9:5:3 respectively. Achua (2010) again asserts that scandals against firms' executives regarding IPOs fraud is becoming the trunk of discussions and research whenever it comes to trading on the stock exchange. Peter (2007) in his research paper investigated initial return on IPOs of Sri Lanka and found that in emerging market, under-pricing exist in high level as compared to developed countries. Fonseka and Tian (2011) while conducting a study on 53 randomly selected listed securities on the CSE observe that the market performance indicators of the return sort, volatility of shares have a significant impact on perfect investment decision; such that the emerging markets exhibit greater sensitivity to abnormal volume trading. They also found that it is less sensitive to stock analysts' recommendation in emerging Colombo security exchange (CSE) so that the stock analysts' recommends more concern on firm dividend than capital gain.

Reuters (2012) reports that the Nigerian SEC said the NSE was at the heart of a web of fraudulent accounting that saw share prices manipulation, insider trading and millions of dollars misspent on a Yacht and Rolex watches coupled with the financial crisis in 2008/2009, such that local investors are scared-off. Similar report in Sri Lanka by Daily Mirror (2012) exposes various methods of market manipulation, such as insider trading and 'pump-and-dump' tactics that artificially jostle share prices towards the benefit of individuals; the distortion of the structure of the market through these market manipulations seem to go unpunished as investors are haltered or fade away from public interest rapidly, ensuring that the perpetrators of these white-collar crimes go unpunished. Sri Lankan Stock Picks (2011) reports that a top corporate

figure and investor confirmed that almost all investments in the CSE could be insiders; because out of the 250 shares, only 100 companies are traded on a daily basis and many of the directors, CEOs of these companies are either related or very good friends; so information could move fast in this small community of Sri Lanka. These evidences show that mispricing could constitute guided fraud which could be detected as quickly as possible because of the back-lash it leaves behind as found by Wang et al (2010) that the majority of IPO frauds (frauds that occurred at the IPO stage) are detected within the first 3 years following the IPO year.

Although in a doctoral study by Charalambides (1998) on the underpricing habit and the long-run performance of IPOs in the U.K., he reports that newly listed firms generate positive returns in the short-run and negative returns in the long-run because they are initially overvalued by optimistic investors. These observations indicate that underpricing and overpricing are the contributing and propelling mechanics for IPOs return volatility when influenced by volatility factors.

III. Hypothesis and Model Specification

Having considered the mechanics of IPOs mispricing (i.e. underpricing and overpricing) as proxies to corporate fraud tendencies, we tentatively state that:

Ho: IPOs underpricing or overpricing are not components of information asymmetry and so do not constitute corporate fraud tendencies during and after the offer.

Whether underpricing or overpricing constitutes corporate fraud tendencies, we adopt it as a proxy measure to reflected on the works of Modigliani and Miller (1958 and 1961) where the price of a common stock is said to be appropriately valued when its intrinsic value is at par with its market price, otherwise, there is a mispricing.

$$V_i = \sum(D_0) + \sum(P_0)/1 + K_0 \;\; = \;\; C_p \qquad (1)$$

Where V_i is the intrinsic value of the stock; $\sum(D_0)$ is the expected dividend at year zero; $\sum(P_0)$ is expected price of the stock at year zero; K_0 is the market capitalization rate at year zero while the C_p is the current market price.

In the same vein, the Capital Asset Pricing Model of Sharpe (1964), Lintner (1965) and Treynor (1965) also reflects the assumption that stocks prices are at equilibrium levels when the rate that investors can expect to earn (required return) on a security is equal to the stock's expected return.

$$R_t = r_f + \beta\left[\sum(r_m) - r_f\right] \quad (2)$$

Where R_t is the expected return on the stock; r_f is the risk-free rate; r_m is the expected market returns and beta is the investor's risk rate (i.e. required or market capitalization rate).

Using these backgrounds, we draw attention to the IPO markets because of the rate of stock crashes and manipulations on the stock market. We then build strong evidence to believe fraud is eminent if there is visible information asymmetry in the market depicting a likelihood of information leakages to create booms or recession. Given situations where a firm's IPO stocks sell in a "hot issue" but crashes immediately afterwards and so on; calls for questions and system necessary to measure the firms' value.

We assume that IPOs returns volatility is a product of the underpricing tendencies and the overpricing tendencies of corporate frauds. Such that the regression relationship is expressed as:

$$IR\sigma_{st}^2 = \beta_0 + \beta_1 FrTU_{st} + \beta_2 FrTO_{st} + U_t \quad (3)$$

Where $IR\sigma_{st}^2$ is the conditional variance of initial returns of IPO stock s at time t; β_0 is the intercept of the regression;$\beta_{1,\text{ and}}$ β_2 are the coefficients of the regressors; $FrTU_{st}$ and $FrTO_{st}$ are corporate fraud tendency via underpricing of IPO stock s at time t and corporate fraud tendency via overpricing of IPO stock s at time t, respectively, and lastly U_t is the shock or the error term absorbing the idiosyncratic risks.

IV. Data Source

The first-day, monthly and yearly data on IPO stocks floated from 1987 to 2012 and 1988 to 2012 on the Nigerian Stock Exchange (NSE) and the Colombo stock exchange (CSE), respectively, are used. The issue prices, market prices and the percent returns were collated from the NSE data department and CSE website. Since the prices are not grouped under a given sequence for the particular sample period of our study, we prudently picked them from the

trading statistics of the exchange for those firms' trading statistics that fell within the sample. NSE had 288 securities out of which 198 are equity stocks and CSE had 287 securities, out of which 239 stocks are equity as at December, 2012. However, it must be noted that the choice sample reflects all IPOs actively trading as at December, 2012 on the main boards as well as on the alternative markets/boards[2] since the index does not exclude any as long as they meet the criteria but excludes all convertibles, corporate and state bonds. The sample size includes one hundred and fifty eight (158) IPOs for the NSE and one hundred and thirty-nine (139) for the CSE between 1987-2012 and 1988-2012, respectively owing to the fact that some equity stocks were delisted within the periods and as at the end of 2012. The sample also excludes government stocks and preference stocks of whatsoever kind. Convenience sampling is utilized thereby helping to select equity stocks grouped under the indexes without being restricted to all IPO stocks listed on the two exchanges (NSE and CSE); it is in the light of this that Asika (1999) posit the view that a researcher who is particularly interested in having a feeling or an idea of a phenomenon of interest may find convenience sampling very convenient.

V. Variables and Methods

Three important variables are identified. The IPO initial returns volatility being the regressed; corporate fraud tendencies via underpricing and overpricing eventually form the regressor group. However, owing to the fact that, emerging markets such as the NSE and CSE do not evidently document and make public all fraudulent data on the stock exchange due to secretive operation in a quest to build investor confidence, we resorted to using dummy proxies to justify the fraud tendencies by asserting that underpricing fraud tendency occurs when percent returns is greater than zero (>0) or otherwise; and overpricing fraud tendency occurs when percent returns is less than zero (<0) or otherwise.

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[2] we use only active IPOs because delisted IPOs will only create vacuums of missing data. Hence, a future study on only the delisted IPOs can also throw more light on why they were delisted after the offer.

So that if R =0, then the IPO is appropriately valued and priced, but if R>0 or R<0, then we assume underpricing and overpricing, respectively (i.e. mispricing with fraud tendencies). Hence there is tendency of fraud relating to expected "money left on the table" (Ritter, 2002, 2004; Ljunqvist & Wilhelm, 2003; Burns & Kedia, 2006; Wang, et al, 2010; Achua, 2010; Liu and Ritter, 2010; etc) or "promise for future banking business and or as a reward to underwriters" (Ljungqvist & Wilhelm, 2003; Shiller, 1990; Loughran &Ritter, 2002; Hoberg, 2005; etc) amounting to creating artificial boom or recession in the market as long as the value of the firm remains unchanged.

Table 1: shows the independent variables' description, sources and the expected signs to depict the fraud tendency in the light of the market manipulations for booms or recession at the expense of the issuer and the investors. Although a negative result for fraud tendency via underpricing could mean a situation of no tendency for fraud and a positive result for fraud tendency via overpricing will depict a condition of no fraud involvement; which in other words indicates that the mispricing is as a result of industry growth and/or vice-versa.

Regression Symbols	**Variable name**	**Variable class**	**Source of data for variable**	**Expected Sign of Relationship**
$IR\sigma^2_{st}$	IPO initial Return volatility @ time t	Dependent	Conditional Variance of IPO returns where returns is market price less offer price divided by offer price multiplied by 100.	Plus or Minus
$FrTU_{st}$	Corporate Fraud tendency via Underpricing of an IPO @ time t	Regressor	Returns>0, i.e., Dummy fraud tendency via underpricing ($FrTU_{st}$);	Positive
$FrTO_{st}$	Corporate Fraud tendency via Overpricing of an IPO @ time t	Regressor	Returns<0, i.e., Dummy fraud tendency via overpricing ($FrTO_{st}$).	Negative

We believe that the tendency for a fraud to occur is where underpricing or overpricing exerts positive or negative influence, respectively; such that the corporate representatives and the underwriting firms are at the gain of it now or in a future time. Other than that, the general assertion of fraud fails to be substantiated but regard the price fluctuation as an act of industry growth. At such instance, we propose that the IPOs price surge or decline is a product of firm appreciation or depreciation in value and business. Moreover, since the IPOs returns volatility is a continuous phenomenon in most capital markets, a more composite method (s) is required to capture all characteristic of underpricing and overpricing that could indicate their potential fraud composition at a given time. Hence the Generalised Autoregressive Conditional Heteroskedasticity (GARCH) models such as EGARCH and TGARCH are used. GARCH (1, 1) model of Bollerslev (1986) captures the thick tailed returns; volatility clustering and can readily modify to allow for several other stylized facts such as non-trading periods (lags) and predictable information releases (Bollerslev, et al, 1994:2969).

$$\sigma_t^2 = \alpha + a_1\varepsilon_{t-1}^2 + a_2\sigma_{t-1}^2 \qquad (4)$$

Where α is constant of the regression;a_1 and a_2 are estimates or coefficients from past data; σ_{t-1}^2 is the most recent variance forecast; ε_{t-1}^2 is most recent squared prediction error in market return. However, for the sake of capturing information asymmetry and other stylized facts, the modified GARCH models conveyed our interest to the logical conclusion on this IPO fraud proposition because of varying timing and lagged-period performance.

Nelson (1991) Exponential GARCH (1, 1) model takes the form of natural logarithm of the conditional variance so that it is allowed to vary over time as a function of the lagged error terms rather than the lagged squared errors. The EGARCH (1, 1) is writhen as:

$$inh_t^2 = \omega + \alpha\left|\frac{\varepsilon_{t-1}}{h_{t-1}}\right| + \gamma\left(\frac{\varepsilon_{t-1}}{h_{t-1}}\right) + \beta inh_{t-1}^2 \qquad (5)$$

The γ captures the asymmetric effect so that the conditional variance is always positive even if the parameter values are negative.

We also use the Glosten et al (1993), Threshold GARCH to accommodate asymmetric effects of bad and good information (news) which has probability of influencing stocks' returns either negatively or positively. It base its assumptions on the fact that the conditional variance of the stock returns (σ^2_t) is differently affected by the unexpected changes in the market returns (R_m), so that since bad news is believed to be associated with sharp volatility of return, it is presented as $\alpha + \gamma$ (i.e. if $\gamma \neq 0$, there is indication that the effect of the news is asymmetry; and if $\gamma > 0$, then the leverage effect is eminent); whereas the beta (β) coefficient contributes to the effect of good news.

$$R_t = \mu + \emptyset r_{t-1} + \varepsilon_t$$

Where: $\varepsilon_t / \emptyset r_{t-1} \sim N\,(0, \sigma^2)$, but

$$\sigma_t^2 = \omega + \alpha\varepsilon_{t-1}^2 + \gamma\varepsilon_{t-1}^2\delta_{t-1} + \beta\sigma_{t-1}^2 \qquad (6)$$

The model allows a quadratic response of volatility to news with different coefficients for good and bad news, but maintains the assertion that the minimum volatility will result when there is no news (Bollerslev et al, 1994).

VI. Results and Discussions

The OLS is purposely used here to complement on the other models in establishing the relationship between the dependent and independent variables as well as the rate of the dependent variable variability accounted by the independent variables. The OLS result for the NSE 158 and CSE 139 IPO stocks show encouraging impacts of the independent variables on the first-day IPOs trading as the variables carry the presumed signs even though most of them show non-significance going by the T-statistics. We observe in table 2 that fraud tendency via underpricing is highly significant during the first-day, monthly and yearly trading of the IPOs in the NSE at 0.01 levels but only significant on the monthly and yearly trading in the CSE.[3] Although, the coefficients of overpricing fraud tendency is not significant in all the sequence-

[3] Even though the coefficients of the overpricing component tend to be insignificant, they still report fraudulent tendency owing to the negative sign displayed.

period of the NSE and the CSE, yet the joint probability given by the F-statistic are all significant except for the first-day trading of the IPOs in the CSE. However, we observe that all the coefficients indicate fraud tendency via the positive and negative signs exhibited by the underpricing and overpricing, respectively; for the NSE and CSE. It is evident that, underpricing is higher during the monthly trading than during the first-day and the yearly trading but the effect during the first-day is higher than the yearly trade in the NSE. On the other hand, it is more pronounced in the monthly trading than in the first-day and yearly trades on the CSE.

Table 2: OLS result for the NSE and CSE IPOs Returns and the fraud tendency dummy factors. The table presents First-Day, Monthly and Yearly Sequence as 1, 2, and 3 respectively

Variable	**NSE**			**CSE**		
	1	**2**	**3**	**1**	**2**	**3**
$FrTu_t$	.663768*	5.668753*	.382080*	2.817457	3.872949***	1.47960*
	(.128068)	(.070644)	(.856851)	(5.797187)	(2.22829)	(.36166)
	[5.182911]	[5.408547]	[6.61580]	[.486004]	[1.73808]	[4.0911]
$FrTo_t$	-.134391	-.113458	-.309742	-.378281	-.263538	-.30104
	(.129459)	(.108588)	(.903016)	(6.25017)	(2.19627)	(.36538)
	[-1.038093]	[-.044850]	[-.34301]	[-.060523]	[-.11999]	[-.82389]
R-Square	.351336	.078663	.011473	.008632	.030603	.026266
Adj. R	.342966	.074751	.011111	-.005947	.025920	.025876
F-Stat.	41.97625*	20.1069*	31.6221*	.592080	6.53477*	67.4493*
AIC	1.567425	2.167679	9.374070	8.254128	7.71667	6.18679
H-Q	1.591041	2.178037	9.375338	8.279865	7.72815	6.18817
D-W	1.722173	2.010187	1.900982	2.019396	1.35708	1.66697
Observation	158	5452	469	139	4944	385

Note: *, **, *** (1%, 5% & 10%); ( ) (std error); and [ ] (T-Stat)

The correlation between the fraud tendency factors and the IPOs initial returns volatility depict the initial proposition that fraud is eminent in the two markets during the first-day trading even though the individual and joint coefficients for the CSE are not significant. This could be as a result of autocorrelation problem as reported by the Durbin-Watson statistics. However, we observe in the same table above that underpricing tendency of the NSE is more present in the monthly and first-day of the offer; meaning that more money is left on the table during the offer. On the first-day trading of IPOs in the NSE, corporate fraud tendency via underpricing is highly significant and account for 35.13% variability of the initial returns compared to all the other

sequences and those of the CSE. More so, table 2 reports the ideal and expected sign for the corporate fraud via overpricing as negatively related to the IPO returns.[4] this means that, an increase in overpricing in anticipation for future banking business could result in a decrease in returns because of the likelihood that the IPO stocks price could crash in the close of the market.

Table 3: GARCH Models Results for the First-Day IPOs Trading Returns and Corporate Fraud Tendency Variables in the NSE and the CSE from 1987 to 2012 and 1988 to 2012, respectively, showing in specific, the influence of the dummy corporate fraud tendency factors on the IPOs initial returns volatility.

Variables	**NSE**			**CSE**		
	GARCH	**TGARCH**	**EGARCH**	**GARCH**	**TGARCH**	**EGARCH**
Fraud via underpricing	0.462596*	0.569395*	0.381986*	3.226966	2.941687	0.707444*
	(0.040693)	(0.081859)	(0.057226)	(2.527518)	(2.671223)	(0.068360)
	[11.36805]	[6.955764]	[6.675082]	[0.014501]	[0.013832]	[10.34881]
Fraud via Overpricing	-0.029920	-0.190725	-0.055556	-0.807423	0.037093	-6.824120
	(0.883658)	(9.787123)	(0.173580)	(6.383698)	(0.888021)	(5.930816)
	[-0.000116]	[-0.000125]	[-0.320058]	[-0.001265]	[4.21E-05]	[-1.150621]
Fraud via overpricing (-1)	0.016982**	-0.150642*	-0.608572*	-112.4159	-68.85712	-3.520109*
	(0.007267)	(0.035637)	(0.095688)	(6.310410)	(4.299341)	(0.251977)
	[2.336990]	[-4.227161]	[-6.359938]	[-1.057431]	[-0.512714]	[-13.96998]
Constant (c)	-0.055338*	-0.116050**	-0.095026**	-0.384550	-0.605218	-0.326380*
	(0.017477)	(0.059215)	(0.044882)	(0.27920)	(205.6244)	(0.081276)
	[-3.166356]	[-1.959828]	[-2.117257]	[-0.001726]	[-0.002943]	[-4.015692]
Alpha (α)	-0.026875*	-0.028705	0.120913	-0.015830	-0.016737*	2.448532*
	(0.002182)	(0.036097)	(0.075327)	(0.023971)	(0.000906)	(0.540235)
	[-12.31716]	[-0.795214]	[1.605166]	[-0.660397]	[-18.47445]	[4.532343]
Beta (β)	0.976114*	0.592612*	0.937727*	0.578221	0.580030	0.814832*
	(0.003665)	(0.094316)	(0.021149)	(0.430201)	(0.493827)	(0.025422)
	[266.3637]	[6.283258]	[44.33825]	[1.344071]	[1.174560]	[32.05215]
Gama (γ)		-0.033237	-0.280393*		-0.145770	-3.238254*
		(0.270456)	(0.047916)		(34.37661)	(0.524252)
		[-0.122892]	[-5.851785]		[-0.004240]	[-6.176905]
R^2	0.273043	0.298716	0.193552	0.008720	0.007753	0.011741
R^{-2}	0.248971	0.270664	0.161295	-0.028828	-0.037694	0.058080
S.E. of regression	0.562880	0.554691	0.594829	15.06354	15.12831	15.27619
Log likelihood	-61.36553	-90.11808	-63.63862	-568.5565	-574.8556	-401.9386
F-statistic	11.34303	10.64889	6.000157	0.232240	0.170589	5.785231
Prob(F-statistic)	0.000000	0.000000	0.000012	0.947798	0.984249	0.00000
AIC	0.858160	1.237173	0.899855	8.326905	8.432689	5.926647
H-Q	0.905596	1.292515	0.955197	8.378625	8.493029	5.986987
D-W	1.476407	1.521941	1.351555	2.020342	2.016895	1.974611
Observations	157	157	157	138	138	138

Note: *, **, *** are significance @ 1%, 5% and 10% levels; () are standard errors and [] are Z-Stat.

[4] The OLS result shows expected correlation between IPOs initial returns and the corporate fraud dummy factors (underpricing and overpricing) asserting the presence of fraud tendencies during and after the offer.

We run the fraud tendency dummy variables on the IPOs initial returns during the first-day trading in table 3 and observed that, only underpricing tendency is significant for both NSE and CSE as predicated by the result on table 2. The three models reports are highly significant at 1% each for the NSE and highly significant at 1% on the EGARCH for the CSE. Their coefficients are highly significant as well reporting 46.26%, 56.94% and 38.20% for GARCH, TGARCH and EGARCH, respectively, on the NSE and 70.74% for CSE according to the EGARCH. We also observe that, the overpricing tendency is very insignificant in the two markets but highly significant when used as a variance regressor at 1- lagged period. This is why it is significant for all the models on the NSE and the EGARCH on the CSE. This means that, overpricing tend to reveal itself in subsequent periods and not the first-day of trading. This happens because the issuing firms at this point after the initial trading will be seeking to redress its investment positions and so investors will begin to know the weakness and that will cause the firm to hide some vital information in order to beat the market. The joint test result of the F-statistic however, is significant at 1% and so accepts that both underpricing and overpricing tendencies are fraud proxy factors. Therefore, as evidence for the best-fit model, the H-Q and the AIC information criteria show EGARCH as the best model with stylized facts for both the NSE and CSE but for ideal model, the GARCH is the best for the NSE without stylized facts.

The stylized facts of the IPOs initial returns volatility to the fraud tendency variables for the first-day trading are glaring and robust. Here the first best-fit model for the NSE (i.e., the GARCH) show that volatility clustering is high (0.9492<1, i.e. 94.92%) and highly significant, while the second best-fit model with more stylized facts (i.e., EGARCH) shows high volatility clustering caused by the fraud variables (1.059>1, i.e. 106%) and significant. Even though the TGARCH reports as the GARCH, it is not significant. For the CSE, the best-fit model (EGARCH) volatility clustering is robust (3.263>1, i.e. 326%) with high significance while the other models report low volatility clustering. We also discover that, there is leverage effect such that the little bad news have more effect than the quantum good news impact on volatility of returns in the NSE indicated by the EGARCH (-0.1595<1, i.e. 15.95% misinformation), similarly, in the CSE, the EGARCH shows also that there is leverage effect with high level misinformation ((-0.78971, i.e. 78.97%).

Table 4: GARCH Models Results for the End-Monthly IPOs Returns and Corporate Fraud Tendency Variables in the NSE and the CSE from 1987 to 2012 and 1988-2012, respectively, indicating the degree of IPOs initial returns volatility cause by the Corporate fraud tendency dummy variables of underpricing and overpricing.

Variables	**NSE**			**CSE**		
	GARCH	**TGARCH**	**EGARCH**	**GARCH**	**TGARCH**	**EGARCH**
Fraud via underpricing	3.07161	6.09593*	9.21928*	1.60515	3.83706*	2.20673
	(123.339)	(0.17531)	(0.18018)	(12.0942)	(0.02423)	(1.92695)
	[0.02490]	[34.7726]	[51.1673]	[0.13272]	[158.341]	[1.14519]
Fraud via Overpricing	-0.46134	3.82567	-0.09612	-0.49407	- 2.3497*	0.60428
	(134.547)	(0.16360)	(0.10260)	(12.3695)	(0.02449)	(2.64469)
	[-0.00343]	[23.3841]	[-0.93688]	[-0.03994]	[95.9341]	[0.22849]
Constant (c)	428.532*	439.586*	4.37687*	17.1636*	1.91533*	3.33839*
	(18.6564)	(12.0543)	(0.00914)	(0.72556)	(0.00868)	(0.18904)
	[22.9697]	[36.4671]	[478.936]	[23.6556]	[220.643]	[17.659]
Alpha (α)	0.25083*	0.15319*	2.34187*	0.12989*	15.0362*	0.01321
	(0.02978)	(0.01315)	(0.03634)	(0.00499)	(0.31822)	(0.02021)
	[8.42339]	[11.6517]	[64.4352]	[26.0139]	[47.2504]	[0.65398]
Beta (β)	0.58372*	0.63022*	0.11320*	0.54856*	0.09831*	0.00573
	(0.01749)	(0.01076)	(0.00076)	(0.01859)	(0.00069)	(0.05499)
	[33.3726]	[58.56974]	[149.044]	[29.5110]	[143.539]	[0.10423]
Gama (γ)		-9.52613*	-0.53505*		0.41750	0.01405
		(0.50856)	(0.04237)		(0.43954)	(0.01959)
		[-18.7316]	[-12.6274]		[0.94987]	[0.71757]
R^2	0.00723	-0.00065	0.00459	0.02556	0.01396	0.02514
R^{-2}	0.006316	-0.00175	0.00349	0.02457	0.01276	0.02395
S.E. of regression	26.3177	26.4242	26.3549	5.36970	5.40213	5.37141
Log likelihood	-25501.8	-24329.3	-24230.7	-14928.6	12672.1	-15120.9
F-statistic	7.92959	4.19682	4.18782	25.9058	11.6463	21.2166
Prob(F-statistic)	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
AIC	9.35724	8.92746	8.89131	6.04149	5.12908	6.11970
H-Q	9.35977	8.93042	8.89427	6.044264	5.13231	6.12293
D-W	1.89036	1.88651	1.90236	1.66597	1.65889	1.66566
Observations	5,452	5,452	5,452	4,944	4,944	4,944

Note: *, **, *** are significance @ 1%, 5% and 10% levels; ( ) are standard errors and [ ] are Z-Stat.

Table 4 further presents the monthly sequence and ascertain the influence of corporate fraud tendency on IPOs initial returns volatility. In this case, the fraud tendency via underpricing has significant coefficient based on the TGARCH and EGARCH for the NSE and TGARCH for the CSE where both demonstrate positive relationship with the IPOs initial returns volatility but on the part of the fraud tendency via overpricing, we observe that the coefficient is not significant in the NSE; the TGARCH shows a positive relationship with the IPOs returns volatility which means a likelihood that the true value of the firm is beginning to unveil. The same instance is found in the CSE where the EGARCH reports positive relationship for the fraud tendency via overpricing however, only the coefficient in the TGARCH is significant. The result presented

by the EGARCH in the NSE is the best-fit model while the TGARCH is the best-fit model for the CSE. In these models, the joint test given by the F-statistic show that the corporate fraud tendency via underpricing and over pricing are factors that influence the volatility of IPOs initial returns in both the NSE and CSE. The display of the stylized facts given by the best-fit model (EGARCH) for the NSE shows 245.5% (2.455065) volatility clustering while the best-fit (TGARCH) model for the CSE reports 151.35% (1.5134535) indicating very high volatility clustering that persist for a longer period before it could revert to mean. We also understand, in the same table that leverage effect is high in the two stock exchanges for the monthly period. In the NSE, bad news account for 180.68% while similar bad news account for 1545.37% (15.453732) of news in the CSE.

Table 5 also report explicitly on the singular cause-effect relationship between IPOs initial returns volatility and the corporate fraud tendency factors (underpricing and overpricing). We observe that, on their own, the duo are responsible for 7.22% and 2.79% of the IPOs initial returns volatility after the issue for the yearly trading in the NSE and CSE, respectively. Although only the coefficient of fraud tendency via underpricing in the NSE is significant at 1% level, the joint tests of F-statistic affirms that both factors are significant at 1% and 10% for the NSE and CSE, respectively. These are outcomes from the EGARCH for the NSE and the TGARCH for the CSE being the best-fit models according to the AIC and H-Q information criteria and the log likelihood ratios. But we still observe that the residuals of series of the CSE is still suffering from positive serial correlation given the D-W statistic, however, the NSE still maintains no serial correlation.

It is also expedient to state here that, the IPOs returns volatility in the CSE indicates a positive correlation with overpricing practically defying our proposition for fraud tendency and thereby asserting that the overpricing is not fraud-oriented but a sort of reversal to industry growth and value addition. Again, in table 5, the stylized facts are robust. Here we observe that volatility clustering is very high for the EGARCH (being the best-fit model) rounding to 101% (1.005867) and highly significant while the GARCH and TGARCH reports low volatility clustering of 43% (0.430354) and 60% (0.595148), respectively, but not significant. In the same manner, the CSE best-fit model (TGARCH) in this case, reports 28.32% (0.283246) being highly significant and indicating very low volatility clustering. However, the EGARCH reports

similar value 1.93% (0.019324) but not significant while the GARCH shows 54.3% (0.542960) volatility clustering but not also significant.

Information asymmetry measured from table 5 also shows that the best-fit EGARCH model for the NSE has a value of 34.59% (0.345944) bad news effects on IPOs initial returns volatility while the TGARCH shows a 2.06% (0.020556) bad news effect but not significant. On the other hand, bad news on IPOs regarding underpricing and overpricing amounts to 98.48% in the CSE which is nearly unity (from the TGARCH) and is highly significant but the value of the EGARCH (0.055553) is not significant.

Table 5: GARCH Models Results for the Yearly IPOs Returns and Corporate Fraud Tendency Variables in the NSE and the CSE from 1987 to 2012 and 1988-2012, respectively, showing the degree of IPOs initial returns volatility cause by the Corporate fraud tendency dummy variables of underpricing and overpricing.

Variables	**NSE**			**CSE**		
	GARCH	**TGARCH**	**EGARCH**	**GARCH**	**TGARCH**	**EGARCH**
Fraud via underpricing	0.41252	0.39956	0.51481*	4.99295	3.59835	3.98686
	(3.35602)	(7.34729)	(0.09562)	(7.7739)	(9.73104)	(0.66839)
	[0.12292]	[0.05438]	[5.38423]	[0.10451]	[0.36978]	[0.05979]
Fraud via Overpricing	-0.13889	0.04705	-0.09721	0.60049	0.55788	0.25483
	(3.38343)	(7.38844)	(0.09393)	(0.91771)	(10.2374)	(0.94994)
	[-0.04105]	[0.00637]	[-1.03488]	[-0.01015]	[0.05449]	[0.00366]
Constant (c)	0.34014	0.33075	-0.71048*	83.5075**	41.2508*	4.84869*
	(1.57007)	(0.43584)	(0.10435)	(3.1562)	(3.10768)	(1.86354)
	[0.21664]	[0.75889]	[-6.80844]	[2.30963]	[13.2738]	[2.60188]
Alpha (α)	-0.00335	-0.00399*	-1.12264*	0.13542*	0.28746*	0.02735
	(0.00188)	(2.9E-07)	(0.09333)	(0.01148)	(0.02389)	(0.13002)
	[-1.78309]	[-13903.9]	[-12.0286]	[11.7931]	[12.0335]	[0.21035]
Beta (β)	0.43370	0.59915	0.11677**	0.40754	-0.00421*	-0.00803
	(6.73988)	(0.52797)	(0.09204)	(0.60286)	(0.00030)	(0.390676)
	[0.06435]	[1.13482]	[1.96892]	[0.67602]	[-13.8968]	[-0.02054]
Gama (γ)		-0.01656	0.77669*		0.69737*	0.02820
		(1.00859)	(0.12340)		(0.84228)	(0.11909)
		[-0.01642]	[6.29410]		[6.82795]	[0.23683]
R^2	0.07865	0.07248	0.07216	0.03152	0.02785	0.03379
R^{-2}	0.06263	0.06043	0.06011	0.01354	0.01242	0.01846
S.E. of regression	0.72121	0.72206	0.72218	11.9605	11.9673	11.9306
Log likelihood	-511.714	-529.603	-427.779	-1390.47	-1265.25	-1457.47
F-statistic	4.90859	6.01667	5.98882	1.75294	1.80484	2.20377
Prob (F-statistic)	0.00001	0.00000	0.00001	0.09558	0.09698	0.04201
AIC	2.22053	2.28829	1.85407	7.26476	6.60907	7.60762
H-Q	2.25187	2.31266	1.87845	7.29734	6.63758	7.63612
D-W	2.25187	2.03365	2.00375	1.35744	1.35801	1.36202
Observations	469	469	469	385	385	385

Note: *, **, *** are significance @ 1%, 5% and 10% levels; ( ) are standard errors and [ ] are Z-Stat.

By and large, the foregoing analysis shows that the null hypothesis is rejected and alternatively states that IPOs underpricing or overpricing are components of information asymmetry and so do constitute corporate fraud tendencies during and after the offer, thereby confirming volatility reasons for IPO stocks.

In this respect, our findings is consistent with Wang et al (2010) that majority of IPO frauds can be detected within the first three (3) years following the IPO year, however, with extension, we assert that the frauds can be detected within the first few days through the first year of the IPOs using the approach we employed. Fraud inherent in IPOs can make small investors averse to investing in them purposely because their fears for loss if their investment to large investors may not be doubtful. We further understand that, since almost all of the IPOs in these markets are marketed by underwriters or a syndicate, the probability is that these intermediaries are the negotiators of the mispricing as evidenced by the high rate of underpricing and overpricing via information asymmetry which tend to be consistent with Beatty and Welch (1996), Ritter (2002), the Economists (2002), Ljungqvist and Wilhelm (2003), Armstrong et al (2009),Achua (2010), Ross et al (2010), Wang (2010) and several others. In the same vein, we discover that, the fraud happens during the IPOs, and after the IPOs which is demonstrated in the First-day, monthly and yearly sequence and very consistent with the reports of Ekineh (2000), KPMG (2011), Sri Lankan Stock Picks (2011), Reuters (2012), Sahara Reporters (2012), Daily Mirror (2012), Chandrasekera (2012), Indian Express (2012), TISL (2012), Gunasekera (2012), Rhaman (2012) and others. Underpricing and over pricing are interchangeably presnt in the emerging markets of Nigeria and Sri Lanka as supported by Samarakoon (2009).

On the other hand, we discover very high information asymmetry due to disclosure problems in the two emerging markets which of course tend not to be in consonant with the findings of LeRoy and Porter (1981) who asserts that more information disclosure leads to less volatility. This is because they could not define what is “more information disclosure”, reason being that, disclosure could be positive or negative and having known that no matter how little a negative information may be, its impact on initial return volatility is more felt than large tones of good news. Hence, with this meaning at heart, we equate our findings with that of Jin and Myers (2007) who assert that more information disclosure leads to more volatility because insiders concerns about private benefits make stocks less volatile and which is again in line with Bartran

et al (20012) report of noise traders-cause volatility. In essence, we suggest in totality that good or bad news disclosure engineers the direction for the uncertainty in the IPO stocks which is supported by Teoh et al (2008) on high stocks price volatility caused by poor disclosure. This is partly why the IPOs in the NSE and CSE are continuously mispriced basically owing to information asymmetry as supported by Rock (1986), Lowry et al (2010) and Girard and Biswas (2007).

VII. Conclusion

The behaviour of IPOs initial returns is such a complex phenomena in the finance literature because of the inconclusiveness of its nature in emerging markets and even the developed markets. However, with the in-depth approach in recent times, there is a very great breakthrough like this piece of work presented here; specifically the issue of corporate fraud tendency factors which on their own, create volatility rate of 106% for the NSE and 326% for the CSE with well rooted information asymmetry rate of 15.95% and 78.97%, respectively, on the first-day of IPOs trading. These confirm our aspirations that volatility in the first-day is very high for IPOs initial returns and persist for a very long period of time which is usually caused by any little bad news released into the market. However, because underpricing is more pronounced in the NSE, the average initial returns for the IPOs is 24.29% while that of CSE is 202.22% because of the dominance of overpricing syndrome; the dummy fraud factors account for volatility clustering of 245.5% and a leverage effect of 180.68% which indicates that, volatility tends to be higher in the monthly sequence than in the first-day so that fraud continue to thrive even higher during the period. The opposite is the CSE where volatility caused by fraud tendency factors amount to 151.35% which is less than the first-day but extremely high leverage effect of 1545.37% confirming the general leverage effect caused during the first-day.

This event also prove in the NSE that, on yearly basis, the fraud tendency factors continued impact on IPOs return volatility amounts to 100.59% with leverage effect of 34.59% depicting that bad news is mostly felt than good news possibly because of much regard for dividends in an annual basis compared to capital gains during the monthly trading while in the CSE, the fraud tendency factors accounts for 28.32% volatility of initial returns and leverage effect of 98.48% indicating a state of dying out and mean reverting trend in subsequent years; an indication also

that dividends do not really count much even on the annual basis but capital gains. These elaborates confirm that mispricing of IPOs (i.e. underpricing/or overpricing) could constitute fraud if it is not commensurate with the firm growth or otherwise. It is however, pertinent to state that, the use of the dummy proxies for the fraud determination during and after the IPOs is most appropriate and empirically substantive and most relevant for stock markets where frauds are concealed and pretended to be absent; however, enough investigations are expected in this regard when studying small and large firms separately. This is because, our study utilized both small and large firms in unison, consequently ignoring the nature of finances each firm is capable of raising and the financial structure of the firms. Furthermore, though a change in the presumed signs of positive and negative for underpricing and overpricing, respectively, could mean no likely fraud tendencies, we still believe that the assumption may not be enough prior to given very serious attention to issues bothering on the internal manipulations and management of the firm.

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