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**INTERNAL AUDIT QUALITY AND VALUE RELEVANCE OF QUOTED MANUFACTURING
FIRMS IN NIGERIA**

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Abstract

The study investigated the relationship between internal audit quality and value relevance of quoted manufacturing firms in Nigeria for a period (2008 to 2017). The proxies were internal audit quality and value relevance; auditor independence and board of directors' independence were control variables. Ex-post facto methodology with panel secondary data were extracted from the annual fact-book of 56 sampled out of 65 quoted manufacturing firms in Nigeria Stock Exchange. Multivariate regression analysis using E-view 10 statistical version software was carried out on the data collected. The results showed the following: internal audit quality and value relevance had a positive and significant relationship; board of directors' independence and auditor independence which were control variables showed a positive and significant relationship. The research concluded as follows: that if internal audit quality increased by a large proportion, value relevance also increased by the same large proportion. It was recommended amongst others that company CEOs, MDs and Human Resource executives should be guided on the hiring of qualified and certified internal audit team/staff.

Keywords: Internal audit quality, board of directors' independence, value relevance auditor independence

Introduction

The code of corporate governance recently issued by the Financial Reporting Council of Nigeria (FRCN) called the National Code of Corporate Governance 2016 was made pursuant to refinements of different sectorial codes. The code which was issued in three parts namely, the code of corporate governance for private sector, not-for-profit entities and public sector. Notable innovations under the code apply to directors, auditing and whistle-blowing (Uju & Omirin, 2016). Internal audit quality

(IAQ) under the auditing code is considered as an effective instrument of management in almost all organization (Belo, et al. 2017). Internal audit is an important part of the corporate governance structure within an organization (Matarneh, 2011).

Internal audit quality means the extent to which an internal audit office meets its purposes (Mihret & Yismaw, 2007). The quality of internal audit is the ability of monitoring activity in the organization, conduct of internal auditors which are independent and objective, to achieve organizational goals effectively (Moeller, 2008). Closely connected to internal audit quality is value relevance coined by Blaver, et al. (1980) as the explanatory power of accounting information with respect to security prices.

In addition, value relevance is the ability of financial statements to summarize information that affects firm value (Hung, 2001). Past literature suggested that the value relevance of earnings decreases, when firms engage in earnings management practices and cash part of the earnings are not influenced due to these practices (Marquardt & Wiedman, 2004).

In Nilson's perspective, value relevance proffers that accounting information causes the market value of shares to fluctuate once it is released. This is why Nilson (2003) classified this view as the fundamental analysis view of value relevance. According to Francis and Schipper (1999), the determination of the value of a firm affects market prices to drift. Hence, the market share price or value eventually digresses towards the calculated intrinsic share value (Nilson, 2003; It must be acknowledged that feeble internal audit quality or noncompliance to its doctrine could prompt financial abuses, corporate frauds and generate heavy losses for the companies (Jill, 2008). These problems have necessitated this research on internal audit quality and value relevance of quoted manufacturing firms in Nigeria during the period 2008 to 2017.

Literature Review

This research was based on *agency theory* with the basic assumption of organizational operation as it exposes the contractual relationship between the owner (principal) and agent (manager) of corporate entities.

Agency theory

Agency theory according to Daily, et al. (2003) is considered as one of the oldest theory in the literature of the management and economics. Agency theory discusses the problems that surface in the firms due to the separation of owners and managers and emphasizes on the reduction of this problem. This theory helps in implementing the various governance mechanisms, to control the agents' action in the jointly held corporations. In the primitive form, agency theory relates to situations in which one individual (called the agent) is engaged by another individual (called the principal) to act on behalf based upon a designated fee schedule (Namazi, 2013).

Since both individuals are assumed to be utility maximizers, and motivated by pecuniary and non-pecuniary items, incentive problems may arise, particularly under the condition of uncertainty and informational asymmetry (Namazi, 2013). In addition, an agency operates under the condition of risk and uncertainty. In effect, the basic agency theory usually assumes that both individuals are risk averse. Under

this circumstances, the amount and content of the produced accounting information and other information sources would become a significant issue in risk sharing and controlling the agent's actions (Baiman, 1990).

Internal audit quality (IAQ)

The internal audit quality is an internal component within corporate governance model which includes audit committee, senior management, external auditors and board of directors (Anderson, et al. 2012). In the perspective of De-Angelo (1981), internal audit quality is the joint probability that audit will truly present the audit findings in accounting system of its client, for the public interest.

It is necessary to maintain the quality of audit because it helps to minimize the agency problem (Masood & Afzal, 2016). Internal audit quality require auditors to carry out their role objectively and in compliance with accepted criteria for professional practice, internal audit activity evaluates and contributes to the improvement of risk management, control and governance using a systematic and disciplined approach (IIA, 2008).

Value relevance

Normally value relevance research is dominated by the earnings and book value of earnings (Kothari, 2001). Value relevance as a notion is based on the pillars of relevance and reliability; it involves the ability of authority members to summarize the information underlying the stock prices, it also describes the relationship between financial information and stock prices (Liu & Liu, 2007). Basically, quoted firms use financial information to show to their shareholders and the public at large (Nassar, et al. 2014).

Accountability information is described as value relevant when it influences the users' decision to form an opinion (Uwalomwa, et al. 2015). It ensures that firms remain indelible in the minds of the investors and shareholders (Uwuigbe, et al. 2016). Value relevance needs to be accessed in order to determine the usefulness of the financial information to investors (Papadak & Siougle, 2007).

Board of director's independence

Board independence denotes a balanced board whose composition is not dominated by board members with executive power, and consists of members who are independent from the management and shareholders (Shamsul & Nahar, 2001).

Accrual quality

The role of accruals is to "shift or adjust the recognition of cash flows over time so that the adjusted numbers (earnings) better measure firm performance (Dechow & Dichev, 2002). However, there is uncertainty inherent when cash is collected in the future because the exact amount of cash that would be collected is unknown (Johnson, 2009). Past empirical studies that have examined internal audit quality and value relevance among others include.

Hassan and Farouk (2014) investigated the relationship between audit quality and financial performance of quoted cement firms in Nigeria. With secondary data collected from published annual statements and accounts covering 2007 to 2011. The multiple regression results showed that auditor size and auditor independence have positive and significant impact on financial performance.

Nwanyanwu (2017) studied the influence of audit quality practices on financial reporting in Nigeria. With data collected through primary source and further analyzed using the Pearson Product Moment Coefficient of correlation and stepwise multiple regression. Findings showed a statistically positive and significant relationship between the measures of audit quality and financial reporting.

Methods

The Ex-post facto design also known as “After-the-facto-design” was employed. It is the research design that is undertaken after the events have taken place and the data are already in existence (Asika, 2010). The population for this study comprised of all quoted manufacturing firms in Nigerian Stock Exchange (NSE). Available data from the Nigerian Stock Exchange office showed that sixty-five (65) manufacturing firms are quoted.

The purposive sampling method under the non-probability sampling was applied on the sixty-five (65) quoted manufacturing firms in Nigeria for companies with 2 years pre-tax profit. Consequently, a total of 56 firms were determined as the sample size, hence the use of Taro Yamane formula was not necessary.

The secondary source of data collection method was used for this research through the published annual financial statements of the 56 quoted manufacturing firms in Nigeria (2008 to 2017). The 56 quoted firms investigated under a period of 10 years formed a panel research study for 560 observations.

Internal audit quality (IAQ) was used as the predictor variable and Value relevance (VAR) the criterion variable. Two control variables were applied as follows: Board of directors’ independence (BDI) and Accrual quality (ACQ).

Internal audit quality (IAQ)

The internal audit quality as an econometric variable was measured as the natural logarithm of internal audit members in the quoted manufacturing firms for various years. The number of internal audit members was obtained from the published annual financial statements of the quoted manufacturing firms in Nigeria (2008 to 2017). Alzeban and Gwilliams (2014); Faruk and Hassan (2014) were extant empirical studies that used internal audit membership as a measure of internal audit quality.

Value relevance (VAR):

This variable was operationalized by the natural logarithm of value relevance pursuant to Ohlson (1995) model. Accordingly, the formula is expressed as follows: $P = \alpha_0 + \alpha_1 BVPS + \alpha_2 EP$ Where: P = Price of shares; BVSP = Book value per share (shareholders’ equity divide by no of common shares); EPS = Earnings per share (net income divided by shareholder equity outstanding)

Model Specification

The model specification for this research was drawn in accordance with the multiple regression analysis.

Functional form

$$VAR = f(IAQ, BDI, AUI) \dots \dots \dots (1)$$

From equation 1, gives.

Mathematical form

$$VAR = f(\hat{IAQ}, \hat{BDI}, \hat{AUI}) \dots \dots \dots (2)$$

Using equation 2; gives

Econometric Form

$$VAR = \beta_0 + \beta_1 IAQ + \beta_2 BDI + \beta_3 AUI + \dots \dots \dots + U_{1,t} \quad (3)$$

From equations 3 the theoretical expectation for this study is that

$$\beta_1, \beta_2, \beta_3 > 0$$

Where: BDI = Board of directors' independence;

IAQ = Internal audit quality;

AU = Auditor independence;

VAR = Value relevance;

$U_{1,t}$ = Stochastic error term ;

β_0 = Regression constant

$\beta_1, \beta_2, \beta_3$ = Regression coefficient;

$\hat{}$ = Statistical estimator

Results and Discussion

Multiple regression tests was carried out on the null hypothesis at 0.05 alpha levels for a two tailed test to ascertain the relationship between internal audit quality and value relevance as well as the influence of the control variables.

Hypothesis Test

Ho₁: There is no significant relationship between internal audit quality and value relevance of quoted manufacturing firms in Nigeria.

Table 1.1: Panel OLS regression result of IAQ and VAR

Dependent Variable: VAR

Method: Least Squares

Date: 09/15/19 Time: 10:27

Sample: 1 560

Included observations: 558

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.756771	3.207837	-3.041542	0.0025
BDI	-0.207856	0.239725	-0.867060	0.3863
IAQ	2.590121	0.595631	4.348535	0.0000
AUI	-3.560397	1.128945	-3.153738	0.0017
IFRS	2.171252	0.877064	2.475591	0.0136

Source: E-view 10 Output (Authors Computation).

Equation summary: $R^2 = 0.64$, F-statistic = 6.814, Prob (F-statistics) = 0, DW = 1.63.

The result from the E-view output above established the relationship between internal audit quality and value relevance of listed manufacturing firms in Nigeria. Estimated coefficient of 0.756771 produced by the software after due analysis confirmed the presence of a positive relationship between internal audit quality and value relevance.

The coefficient also implied an increase of 2.590121 in internal audit quality as value relevance increased by a constant term of 0.756771. In addition, R-square,

$R^2 = 0.646974$ showed that the overall model was fit as 64% change in value relevance was caused by internal audit quality. The remaining 36% was attributed to other factors not captured in the model but covered by the stochastic error term. Equally, a standard deviation dependent variance of 11.82660 showed the risk burden on value relevance that was predicted by internal audit quality.

While, a Durbin Watson (DW) value of 1.62 close to the value 2 implied the absence of serial autocorrelation in the model. F-statistic value of 6.814186 greater than prob (F-statistic) value of 0 revealed the significance of the overall model. With the critical value approach of +1.96 and -1.96; applying the decision rule at 0.05 alpha level of significance for a 2-tailed test and t-statistic 4.348535 greater than +1.96 signified that the null hypothesis H_{05} was significant and therefore rejected. The alternative hypothesis H_{A5} was thus accepted.

The findings of this research are discussed as follows:

This finding signified that internal audit quality exhibited the capacity to significantly influence value relevance for a positive outcome. The result further implied that if internal audit quality increased by one percent (1%), value relevance also increased by the same one percent (1%). And, if internal audit quality decreased by one percent (1%), value relevance also decreased by the same one percent (1%). This finding corroborated the empirical results by Hassan & Farouk (2014); Nwanyanwu (2017).

Conclusion

Based on the findings, the research concluded that a one percent (1%) increase in internal audit quality could lead to the same proportionate increase in value relevance

Recommendations

Given the findings and conclusions, this research recommended as follows: Company CEOs, MDs and Human Resource executives that are directly in charge of personnel recruitment in the firm should be guided on the hiring of qualified and certified internal audit team/staff. This would sustain the positive and significant relationship between internal audit functions, and value relevance of quoted manufacturing firms.

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