

Trend Analysis of Earnings Quality among Listed Companies in Nigeria

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Abstract

The study examined the trend of earnings quality of listed companies in Nigeria. Secondary data were employed for the study. Purposive sampling technique was used to select 65 financial and non-financial firms quoted on the Nigerian Stock Exchange (NSE). These comprised 15 financial firms and 50 non-financial firms selected on the basis of continuity in transaction and availability of complete data during the study period. Data were sourced from the audited Annual Reports and Accounts of the sampled firms and from the NSE factbooks. Data were analysed using content analysis, mean, percentages, graphs and tables. The trend analysis results showed that previous earnings quality of companies listed in Nigeria have potential positive impact on their current and subsequent earnings quality. The quality of earnings improved between 2006 and 2007 but declined in 2008. However, there was consistent improvement in the earnings quality in year 2009, 2010 and 2012 with a decline in 2013. The result further revealed that IT Services sector had the best average earnings quality performance, followed by packaging and containers, construction and chemical while agric/agro-allied and food beverages had the least average earnings quality. The study concluded that stock market participants including the shareholders, potential investors, financial analysts and other users of audited financial statements would enhance the quality of their economic evaluation and decisions by painstakingly analysing the comparative earning quality trends of various companies.

Keywords: earnings quality, accrual ratio, earnings trend, listed company, Nigeria.

INTRODUCTION

Earnings are a central part of financial statements that help a large number of stakeholders or users of accounting information to evaluate firm performance. Shareholders use the reported financial information to measure managers' performance, deciding compensation plans and assessing the future of the company. Reported financial information influences the investors' capital allocation decisions (Xu, Taylor & Dugan 2007). Earnings serve as a key determinant of dividend policy, investment decision as well as a core measure of a firm's performance, an effective criterion in stock pricing and eventually an instrument utilized to make predictions (Mohammady 2012).

Earnings quality is the honest expression of the reported profit. It is the ability of the present earnings to provide a real picture about the company and its ability to survive in the future. Chasteen, Flaherty and O'Connor (1992) opined that the quality of earnings refers to how closely income is correlated with cash flows, that is, the higher the correlation, the higher the earnings quality. Prior research related earnings quality to the level of earnings management because of the difficulties in measuring earnings quality and established that firms use accounting accruals to manage earnings (Healy 1985; Jones 1991; DeFond and Park 1997) and accruals

offer a robust and parsimonious measure of earnings quality (Sloan, 1996; and Richardson, Sloan, Soliman & Tuna 2001).

Ohlson and Feltham (1995) defined earnings quality as the investor's ability to predict future abnormal earnings depending on recent data. According to Sloan (1996) and Dechow and Dichev (2002) earnings of high quality are those that "are backed by past, present, or future cash flows". Penman and Zhang (2002) and Dechow and Schrand (2004), defined it as earnings of high-quality those that "are persistent and hence the best predictor of future long-run sustainable earnings". That is, a high earnings quality shows the usefulness of profit information for decision making by the users and also it is more adjusted with economic profit (Ahmadpoor and Ahamdi, 2008).

Today, the incidence of earnings manipulation activities by management is perceived to have consequently shaken the trust and confidence of investors in the financial reporting system and earnings quality emerges as an important factor in determining the validity and reliability of reported figures. The reliance of external users on reported earnings as a fundamental variable for

making decisions, made earnings quality a matter of great concern.

Having considered the centrality of earnings quality in literature, it was apparent that further efforts should be made to explore the yearly reports of company' chairman vis a vis the pattern of earnings quality of listed companies over time. This aspect appeared to have been neglected by researchers so far in the available literature. The need to investigate the trend of earnings reported among the listed companies in Nigeria therefore becomes critical. In addition, past studies in Nigeria focused on non-financial firms (Shehu 2011; Shehu and Abubakar 2012; Adeniyi and Mieseigha 2013; Okolie, Izedonmi and Enofe 2013; Okolie 2014; Omoye and Eriki 2014; Musa and Shehu (2014) while this study focused on both financial and non-financial listed companies. The rest of the paper is divided into four sections. Section two focused on literature review while methodology is discussed in section three. Results and discussions are contained in section four while section five focused on the conclusion of the paper.

LITERATURE REVIEW

According to DeAngelo (1986), earnings of high quality are those that "present smaller changes in total accruals that are not linked to fundamentals". There are several possible earnings quality constructs, based on a range of definitions of which some are related to the time-series properties of earnings which include persistence, predictive ability and variability (Kormendi&Lipe 1987).

Financial analysts view earnings of high quality when it is expected to repeat constantly and with a high level of predictability. (Bernstein 1988; Bricker, Previts, Robinson and Young 1995). Lev (1989) defined earnings quality in the context of equity valuation decisions and he popularized the adjective "quality" as a descriptive characteristic of earnings for academic researchers and stated that one explanation for low earnings/returns models is that: "*No serious attempt is being made to question the quality of the reported earnings numbers prior to correlating them with returns.*" Accounting researchers continue to use the descriptor *quality* in reference to the decision-usefulness of earnings in equity market valuation.

However, Schipper and Vincent (2003) asserted that the predictive ability is not linked to "the representative accuracy of reported earnings to an economic construct" due to the fact that the ability of earnings to predict itself might increase management involvement to smooth the reported series relative to the unreported unmanaged series. Managers may introduce short-term

components to the income series, which reduce earnings quality as captured by persistence, in order to decrease time-series variability and increase predictability. Leuz, Nanda, and Wysocki (2003) shared the same view by their assertion that artificially smoothed earnings are not representatively realistic to the reporting entity's business model and its economic environment.

Watts (2003a, 2003b) argued that those earnings that are derived under conservative accounting rules or the conservative application of relevant rules" are of high quality. Schipper and Vincent (2003) considered earnings to be the main profitability indicator as well as the main source of financial information in capital markets. They focused on decision usefulness and economic income to express a definition of earnings quality as proximity degree of accounting earnings to Hicksian earnings. Hicksian earning is an amount that is consumed during a period so that the welfare at the end period in comparison to the beginning of period is not changed. They argued that earnings of high quality are those that "predict future earnings better".

Schipper and Vincent (2003) offered alternative perspective on measuring earnings quality based on understanding of accounting choices, incentives, expertise and limitation posed to auditors and accountants with two approaches. The first is that earnings quality is inversely related to the amount of judgment and forecasting that the preparers of financial reports require and secondly, quality is inversely related to the extent that accountants' estimations and forecasts have results other than those standards target.

Dechow and Schrand (2004) argued that a good understanding of earnings quality plays an important role in the process of financial analysis and that earnings of high quality help financial analysts in analyzing three basic sides of information, that is, the present functional performance of the company; future functional performance; and value of the company. They stated that smooth earnings and earnings that do not have special or non-recurring items are earnings of high quality. Abdelghany (2005) noted that different styles for measuring earnings quality lead to different evaluations, where the same company might be given a higher or lower quality level according to the earnings quality form adopted. Altamuro and Beatty (2006) used earnings continuity (the relationship between the present earnings with the future ones) as a standard of its quality.

Financial Accounting Standards Board (FASB)'s Conceptual Framework emphasised various qualitative characteristics in relation to earnings quality construct:

relevance (timely accounting recognition of economic phenomena); reliability (reducing measurement errors) and comparability (assessing financial reporting quality among firms). This definition poses operational and empirical challenge for researchers since the stated characteristics are neither mutually exclusive nor necessarily compatible and cannot be separately measured (Barker and Iman 2008).

According to Dechow, Ge and Schrand (2010), higher quality earnings more faithfully represent the features of the firm's fundamental earnings process that are relevant to a specific decision made by a specific decision-maker. They identify the proxy for earnings quality under the following categories: (i) statistical properties of earnings which are composed of persistence and accruals, earnings smoothness, asymmetric timeliness and timely loss recognition as well as the benchmarking, in which the distance of earnings from a benchmark is viewed as a measure of its quality (e.g., small profits) ; (ii) investor responsiveness to earnings includes papers that use an earnings response coefficient (ERC) as a measure of earnings informativeness or earnings quality ; and (iii) external indicators of financial reporting quality which also includes: Accounting and Auditing Enforcement Releases (AAERs) restatements, and internal control procedure deficiencies reported under SOX.

METHODOLOGY

The list of quoted companies on the first and second tiers of Nigerian Stock Exchange (NSE) in the Factbook 2013 contained 194 firms. Secondary data was sourced for this study from the audited Annual Reports and Accounts of the 65 sampled firms and from the Nigerian Stock Exchange factbooks. The firms comprised 15 financial and 50 non-financial firms purposively selected on the basis of continuity in transaction and availability of complete data during the study period. The financial companies comprise of money deposit banks and insurance companies. Table 1 contained the details of the sample size for the study. Data were analysed using content analysis, mean, percentages, graphs and tables.

Earnings quality has been used in numerous empirical studies to show trends over time in line with the objective of standard setters to evaluate changes in financial accounting standards with a view to improving as well as making comparison. Other usefulness of earnings quality trend include among others, determining the effect of earnings quality on the cost of capital, keeping pace with the recent changes in auditing as well as corporate governance in general.

Table 1: Population and Sample Size

SECTOR	Population	Sample Size
Agric/Agro-Allied	5	5
Conglomerates	8	7
Breweries	7	3
Food/Beverages	14	5
Industrial Products	5	2
Health Care	10	5
Printing & Paper Product	6	2
Building Materials	13	5
IT Services	7	2
Financial Institution	55	15
Energy Equipment, Petroleum & Petrol Products	14	6
Household Durables	4	4
Packaging & Containers	6	1
Chemicals	1	1
Tools & Machines	3	1
Construction	10	1
Services	12	NIL
Alternative Securities	8	NIL
Natural Resources	3	NIL
Electrical Services	3	NIL
TOTAL	194	65

Source: Nigerian Stock Exchange 2013
Measurement of Earnings Quality

There is no standard ratio to define what is considered good, strong, or poor quality earnings. Ratio is best used therefore as a relative measurement between companies. Using the statement of financial position approach, earnings quality was measured as the change in net operating assets over a period. Francis and Wang (2008) used signed discretionary accruals as the (inverse) measure of earnings quality. Suleiman (2014) employed negative accrual measure in estimating accounting conservatism.

The accrual method has been used extensively in earnings quality research as it not only captures the effect of accruals management but also the effect of some of the earnings quality techniques, such as changes in accounting estimates and manipulating recognition timing. Earnings have a cash flow component and an accrual component. Reported earnings can be disaggregated into cash flow and accruals using the statement of financial position approach or the cash flow statement approach.

Using the statement of financial position approach, earnings quality was measured as the change in net operating assets over a period (CFA, 2014). A net operating asset (NOA) is the difference in operating assets and operating liabilities. The formula is given as:

$$EQ = NOA_t - NOA_{t-1} \quad .1$$

Where:

NOA = Operating Assets (OA) – Operating liabilities (OL)

OA = Total assets minus cash equivalents and marketable securities

OL = Total liabilities minus total debt (both short-term and long-term)

NOA_{it} = Operating Assets (OA) minus Operating liabilities (OL) for firm i in year t.

NOA_{it-1} = Operating Assets (OA) minus Operating liabilities (OL) for firm i in year t-1.

Literature has established the necessity of scaling the accrual measure of earnings quality for differences in size. Scaling the measure also allows for comparisons with other firms. Scaling is done by dividing the accrual measure of earnings quality by the average NOA for the period. The result is known as the accrual ratio:

$$EQ = \frac{NOA_{it} - NOA_{it-1}}{(NOA_{it} + NOA_{it-1})/2} \quad 2$$

Using cash flow statement approach, aggregate accruals (earnings quality) can be derived by subtracting cash flow from operating activities (CFO) and cash flow from investing activities (CFI) from reported earnings as follows:

$$EQ = NI - CFO - CFI$$

The cash flow measure must be scaled for comparison purposes. Thus, the accruals ratio (earnings quality) based on the cash flow statement follows:

$$EQ_{it} = \frac{NI_{it} - CFO_{it} - CFI_{it}}{(NOA_{it} + NOA_{it-1})/2} \quad .F3$$

Where:

NI = Income after tax

CFO = cash flow from operating activities

CFI = cash flow from investing activities

NOA_{it} = Operating Assets (OA) minus Operating liabilities (OL) for firm i in year t.

NOA_{it-1} = Operating Assets (OA) minus Operating liabilities (OL) for firm i in year t-1.

According to Dechow, Ge and Schrand (2010), the higher the accrual measure of earnings quality for each sampled firm, the lower the quality. The interpretation of both accruals ratios (eq. 3.2 and 3.3) is the same; the lower the ratio, the higher the earnings quality. A high ratio is an indication that the company's accrual basis earnings has a high aggregate accruals component which represents less persistent/ lower quality earnings. This measure of earnings quality captures the extent to which accruals map into cash flow realization in the past, present, and in the future cash flows. Thus, the scaled accrual ratio results, that is, the earnings quality for each of the companies under study were presented in Table 2. The lower the accrual ratio, the higher the earnings quality.

RESULTS AND DISCUSSIONS

Table 2: Trend analysis of earnings quality among the listed companies in Nigeria

SECTORAL ANALYSIS OF EARNINGS QUALITY OF NIGERIAN LISTED COMPANIES DURING 2006-2013 (EQ1)									
SECTOR	2006	2007	2008	2009	2010	2011	2012	2013	MEAN
Agric/Agro-Allied	0.362548	0.091367	1.230006	2.365128	-1.67828	0.646305	1.741094	0.156343	0.614313507
CONGLOMERATES	0.640246	1.349058	0.96929	0.029249	0.024876	0.447606	2.011565	-1.58663	0.485657212
BREWRIES	-2.37065	-1.02079	1.892294	0.987248	0.871539	-0.09544	0.518801	0.122038	0.113129895
FOOD/BEVERAGES	-0.72864	2.08335	0.941096	0.53893	-0.1882	1.131931	-2.44065	6.881891	1.027463688
INDUSTRIAL PRODUCTS	-0.07014	2.074872	0.284758	0.367499	1.540428	-1.39871	0.230611	-0.09665	0.366581824
HEALTH CARE	0.481598	-0.37653	0.870326	-0.49339	0.191414	0.919181	-0.04679	-0.01012	0.19196147
PRINTING &/PAPER PROD	-0.08341	0.164664	0.861939	0.156375	-0.68865	-1.17222	-0.95515	2.031049	0.039325458
BUILDING MATERIALS	-0.81424	-6.1495	0.344798	0.670048	0.475321	1.436264	0.042357	0.563588	-0.428920107
IT SERVICES	0.114425	0.84715	-0.50024	-0.26301	0.155735	-0.08996	-0.18698	-0.06934	0.000971916
FINANCIAL SECTOR	0.732996	1.249087	0.155877	-6.91008	-2.18216	-2.59948	0.525555	1.908241	-0.88999568
ENERGY EQUIP,PET& PETROL PRODUCTS	6.57469	1.814693	-2.03769	-4.34985	2.403145	4.30642	-9.13259	3.292759	0.358947402
HOUSEHOLD DURABLES	0.201345	0.865612	-0.40383	0.589109	0.116418	0.186849	0.711331	0.069942	0.292097413
PACKAGING & CONT.	0.095584	-0.03133	0.126457	0.015874	0.006015	-0.06475	-0.03381	-0.01432	0.012465196
CHEMICALS	0.054504	0.045534	-0.02437	0.075915	0.000404	-0.00205	0.114952	0.014597	0.034935031
TOOLS & MACHINES	0.11238	0.111416	-0.14704	-0.09152	0.173932	-0.08968	-0.0456	0.446685	0.058821679
CONSTRUCTION	0.029168	-0.0339	-0.04544	0.101562	0.066062	-0.02667	-0.02968	0.058005	0.014889653
AVERAGE MEAN	0.333275	0.192797	0.28239	-0.38818	0.0805	0.220974	-0.43594	0.860504	0.143290347

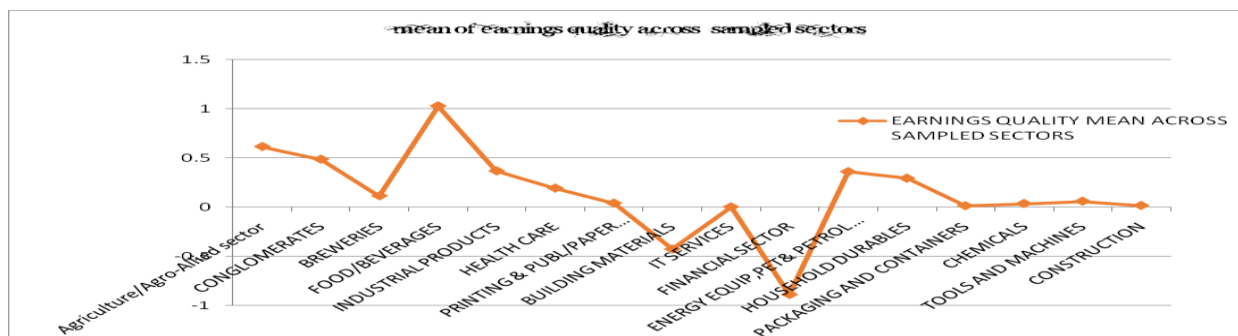


Figure 1: Trend of Earnings Quality (EQ) of Nigerian Listed Companies during 2006-2013

Source: Author's Computation, 2016

The results of the trend analysis of earnings quality in table 2 with graphical representation in figure 1 showed that building materials sector had the best average earnings quality performance. The next to it was IT Services sector, followed by packaging and containers, construction, chemical, Printing & Paper Production, tools and machines, Breweries while agric/agro-allied

and food beverages had the least average earnings quality. It is worthy of note here, that although, the financial sector had the lowest accrual ratio, the sector was majorly comprised of banks in which the accrual characteristics are different from the non-financial firms which on the hand were composed of manufacturing companies with common accrual features. The basis for comparison of firms in the financial sector would be best among firms within the sector.

Table 3: Sectorial Analysis of Earnings Quality of Nigerian Listed Companies (2006-2013)

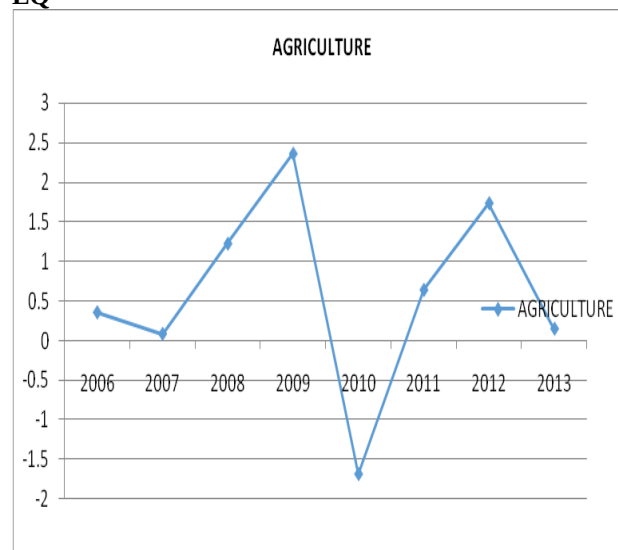
YEAR	AGR	% Change	CON	% Change	BRE	% Change	FOO	% Change
2006	0.362548		0.640246		-2.37065		-0.72864	
2007	0.091367	-27.1181	1.349058	70.88115	-1.02079	134.986	2.08335	281.1989
2008	1.230006	113.8639	0.96929	-37.9768	1.892294	291.3086	0.941096	-114.225
2009	2.365128	113.5122	0.029249	-94.0041	0.987248	-90.5046	0.53893	-40.2166
2010	-1.67828	-404.341	0.024876	-0.43732	0.871539	-11.5709	-0.1882	-72.7131
2011	0.646305	232.4588	0.447606	42.27303	-0.09544	-96.6975	1.131931	132.0132
2012	1.741094	109.479	2.011565	156.3958	0.518801	61.42366	-2.44065	-357.258
2013	0.156343	-158.475	-1.58663	-359.82	0.122038	-39.6763	6.881891	932.2539
	INP	% Change	HEA	% Change	PRI	% Change	BIU	% Change
2006	-0.07014		0.481598		-0.08341		-0.81424	
2007	2.074872	214.5017	-0.37653	-85.8129	0.164664	24.80717	-6.1495	-533.527
2008	0.284758	-179.011	0.870326	124.6857	0.861939	69.72745	0.344798	649.43
2009	0.367499	8.274032	-0.49339	-136.372	0.156375	-70.5564	0.670048	32.52498
2010	1.540428	117.2929	0.191414	68.48026	-0.68865	-84.5023	0.475321	-19.4727
2011	-1.39871	-293.914	0.919181	72.77667	-1.17222	-48.3569	1.436264	96.09427
2012	0.230611	162.9326	-0.04679	-96.5968	-0.95515	21.70669	0.042357	-139.391
2013	-0.09665	-32.7265	-0.01012	3.666612	2.031049	298.6199	0.563588	52.1231
	ITS	% Change	BAN	% Change	ENE	% Change	HOU	% Change
2006	0.114425		0.73299		6.5746		0.20134	
2007	0.84715	73.2725	1.2490	51.6091	1.8146	-476	0.8656	66.4266
2008	-0.50024	-134.739	0.1558	-109.321	-2.03769	-385.238	-0.4038	-126.944
2009	-0.26301	23.72252	-6.91008	-706.595	-4.34985	-231.217	0.589109	99.2936
2010	0.155735	41.87471	-2.18216	472.7916	2.403145	675.2999	0.116418	-47.2691
2011	-0.08996	-24.5699	-2.59948	-41.7322	4.30642	190.3275	0.186849	7.043116
2012	-0.18698	-9.70167	0.525555	312.5038	-9.13259	-1343.9	0.711331	52.44818
2013	-0.06934	11.76416	1.908241	138.2685	3.292759	1242.535	0.069942	-64.1389
	PAC	% Change	CHE	% Change	TOO	% Change	CST	% Change
2006	0.095584		0.054504		0.11238		0.029168	
2007	-0.03133	-12.691	0.045534	-0.89705	0.111416	-0.09643	-0.0339	-6.30644
2008	0.126457	15.77835	-0.02437	-6.99072	-0.14704	-25.8455	-0.04544	-1.15396
2009	0.015874	-11.0583	0.075915	10.02879	-0.09152	5.552073	0.101562	14.69977
2010	0.006015	-0.98595	0.000404	-7.55102	0.173932	26.54512	0.066062	-3.55003
2011	-0.06475	-7.07691	-0.00205	-0.24567	-0.08968	-26.361	-0.02667	-9.27324
2012	-0.03381	3.094843	0.114952	11.70048	-0.0456	4.407488	-0.02968	-0.30057
2013	-0.01432	1.948423	0.014597	-10.0356	0.446685	49.22883	0.058005	8.768168

Source: Author's Computation, 2016

Table 3 presented the percentage changes in accrual ratio of the companies in the study over the period of eight years under study, i. e 2006 to 2013. The analysis was based on the sectors included in the sample. Agriculture / Agro allied sector returned percentage decrease of about 27% in its accrual ratio for the five companies taken together between years 2006 and 2007. There was a percentage increase of about 114% between 2007 and 2008 as well as 114% percentage increase between 2008 and 2009. Whereas, the subsequent period witnessed a very sharp decline of about 404% in its accrual ratio, while the trend was averagely reversed during the period of 2010 and 2011 by about 232% change increase. Between 2011 and 2012, the percentage change in the ratio returned about 109% increase while it resulted in about 158% between 2012 and 2013.

The trend for agriculture as analysed became clearer as plotted on line graph in figure 2. Earnings quality for agriculture / agro allied companies therefore, showed irregular pattern within the eight years under study. Earnings quality improved appreciably in years 2007, 2010 and 2013 specifically. For some of the sampled companies, the accounting earnings for the period under investigation were volatile in nature and the management estimates of accruals might have been affected by economic and market uncertainties.

EQ



Year

Figure 2: Trend Analysis of Earnings Quality (EQ) in Agriculture Sector between 2006 and 2013

Source: Author's Computation, 2016.

Figure 3 showed the trend of earnings quality in Conglomerate Sector of Nigerian economy. The details

of the trend were provided by Table 2 as well as the percentage change of the accrual ratio provided in Table 3. The figure revealed a decline in earnings quality in years 2007, 2011 and 2012 only. For the companies in this sector, earnings quality was on the increase in years 2008, 2009, 2010 and 2013. The implications of this pattern would include the fact that the companies under conglomerate are healthy in their business and market operation and most likely the effectiveness of the audit committee activities as required by regulations. The periods of higher earnings quality for some of the companies might be due to low cost of capital as found by Francis, Lafond, Olsson and Schipper(2004).

EQ

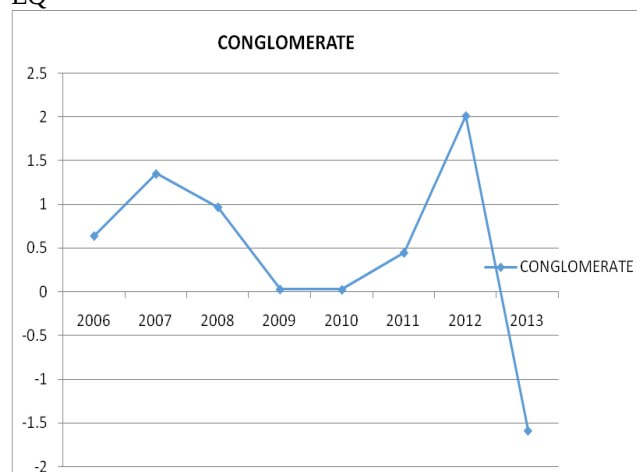


Figure 3: Trend Analysis of Earnings Quality (EQ) in Conglomerate Sector between 2006 and 2013

Source: Author's Computation, 2016.

The accrual ratio pattern of the breweries sector was presented in Table 2 with the percentage change in accrual ratio in Table 3 as well as the graphical representation of the trend in figure 4. From the analysis, it could be seen that the ratio was on the increase in years 2007 and in year 2008 implying that the earnings quality for those period was low while in 2009, 2010 and 2011, there was a consistent increase in the quality of the earnings of the breweries while again in 2012, the quality fell as the accrual ratio computed increased but in 2013, the fall in the value of the accrual ratio indicated an improvement in the earnings quality of the sector. This pattern of earnings could be adjudged poor due to its inability for high earning quality sustainability.

The accrual ratio computed as well as the pattern of the earnings quality of the companies in the food and beverages listed on the floor of Nigerian Stock Exchange were as presented in Tables 2 and 3 as well as figure 5. The trend showed that the earnings quality for

the set of companies in the sample declined between 2006 and 2007 as shown by the percentage increase of about 281. However, the sector showed a consistent improvement in its quality of earnings between 2007 and 2008, 2008 and 2009, 2009 and 2010. The sector showed a decline in the earnings quality in year 2012 while in 2013, the decline was spurious. This raised a concern on the financial health of the sector in the most recent year of the period under study. This pattern of trend of the earnings quality might be due to inconsistent use of accounting methods leading to unsustainable reported quality of earnings as seen in the period under investigation.

EQ

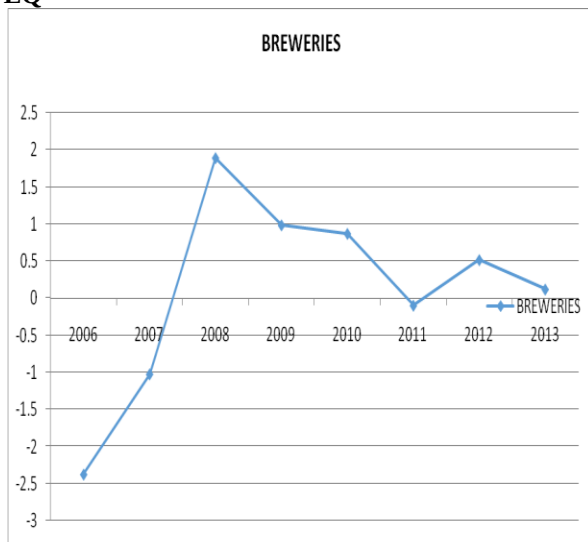


Figure 4: Trend Analysis of Earnings Quality (EQ) in Breweries Sector between 2006 and 2013

Source: Author's Computation, 2016.

EQ

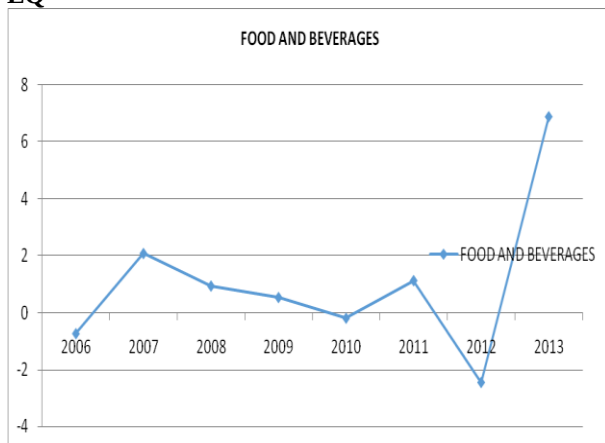


Figure 5: Trend Analysis of Earnings Quality (EQ) in Food and Beverages Sector between 2006 and 2013

Source: Author's Computation, 2016.

The results of the accrual ratio as computed on the companies in the industrial products sector in figure 6 showed a fluctuation in the trend between 2006 and 2007, and 2007 and 2008. There was marginal increase in accrual ratio of about 8% between 2008 and 2009. The increase in the ratio was more between 2009 and 2010 with about 117% than the preceding period. The fluctuating showed a negative decline ratio of about 294% between 2010 and 2011 while in 2012, an increase of about 163% between 2011 and 2012 with a further negative reduction in the ratio by a percentage change of about 33% in 2013.

EQ



Figure 6: Trend Analysis of Earnings Quality (EQ) in Industrial Products Sector between 2006 and 2013

Source: Author's Computation, 2016.

The results of the accrual ratio as computed on the companies in the health care sector showed a fluctuation in the trend. There was a negative decline of about 86% between 2006 and 2007; a rise in the percentage between 2007 and 2008 of about 125% while accrual ratio negatively decreased by about 136% between 2008 and 2009. The fluctuating pattern also revealed an increase of about 68% between 2009 and 2010 with a further increase in the ratio of about 73% between 2010 and 2011 while in 2012, there was another negative reduction in the ratio by a percentage change of about 96% and lastly in 2013, the upward rise in the value of the accrual ratio. This consistent fluctuation showed an immediate improvement in the earnings quality of companies in this sector after an immediate decline in the quality of earnings. A major implication of this pattern might be that the management was on consistent

struggle to manage the financial health of this sector from crumbling in the face of market turbulence. The pattern of the earnings was represented graphically by figure 7. The significant variations in the earnings quality of health sector might be due to firm-specific factors such as lines of business, unfavourable market condition. This might also be due to accounting manipulation.

EQ

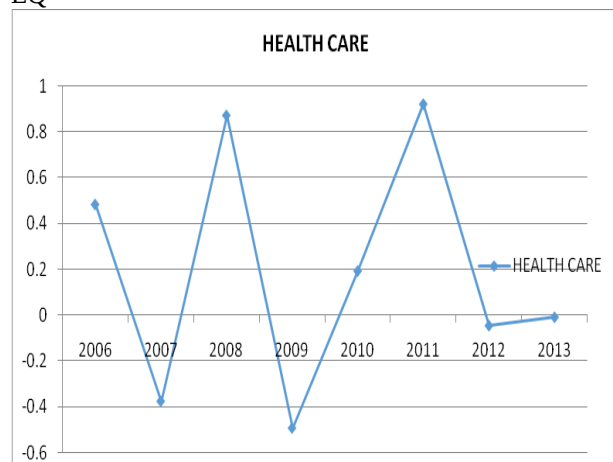


Figure 7: Trend Analysis of Earnings Quality (EQ) in Health Care Sector between 2006 and 2013

Source: Author's Computation, 2016.

The pattern of accrual ratio of printing and publishing / paper products sector was presented in Table 2 with the percentage change in accrual ratio in Table 3 as well as the graphical representation of the trend in figure 8. From the analysis, it could be seen that the ratio was on the increase between 2006 and 2007, and between 2007 and 2008 implying that the earnings quality for those period was low. However, between 2008 and 2009, 2009 and 2010 as well as 2010 and 2011, there was a consistent decrease in the accrual ratio implying a consistent increase in the quality of earnings of the sector within the stated periods. Between 2011 and 2012, the accrual ratio increased by a percentage change of about 22%. The increase became more prominent with a further percentage of about 298. Earnings quality fell within the last periods in the sector which was capable of provoking a serious concern about the financial strength and health of the companies in the category. Some of the companies in the sector experienced stiff operating conditions ranging from high operating cost, lack of access to credit facility with increased rate of lending from banks. This contributed significantly to a declined volume of trade, increase in debtors, recurrent losses and the attendant recapitalisation. This result is consistent with the findings of Hassan and Farouk (2014) on the significant

positive impact leverage, liquidity and firm growth wield on earnings quality

EQ

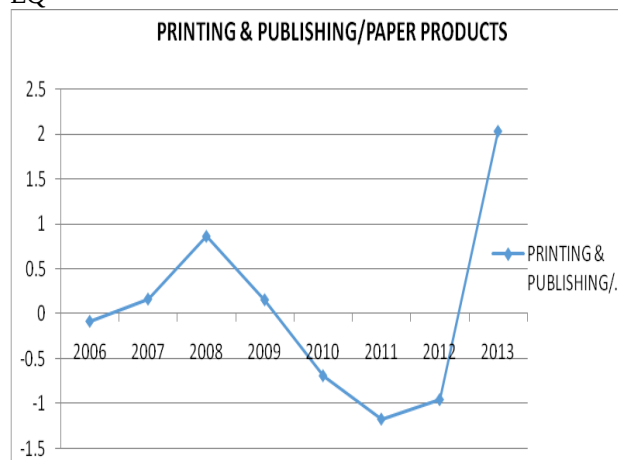


Figure 8: Trend Analysis of Earnings Quality (EQ) in Printing and Publishing / Paper Products Sector between 2006 and 2013

Source: Author's Computation, 2016.

Table 2 presented the percentage changes in earnings quality of the companies in the study over the period of eight years under study, i. e 2006 to 2013. The accrual ratio for the companies in building materials sector for 2006 was -0.81 which subsequently returned a negative decrease in percentage change of about 533% in its accrual ratio between 2006 and 2007. There was a sharp increase in the percentage increase of about 649% between 2007 and 2008 as well as further increase of about 33% between 2008 and 2009. Whereas, the subsequent period witnessed a negative decline of about 19% in its accrual ratio, while the pattern was reversed during the period of 2010 and 2011 by about 96% change increase. There was a fall in the ratio between 2011 and 2012 with a negative decrease of about 139% in the percentage change in the accrual ratio. Between 2012 and 2013 there was a marginal increase of about 52% in the value of the accrual ratio. The trend for building materials became clearer on the line graph represented in figure 9. Earnings quality building materials showed irregular and fluctuating pattern within the eight years under study.

The fluctuations witnessed in the pattern of earnings quality might have resulted from unfriendly operating conditions in form of worsening power supply, incessant increase in crude oil prices which drove significant increases in raw material prices for some of the companies in this sector. However, the sector emerged strong by making in-roads into new markets and created new consumer segments that were more

profitable. This might account for the competitive advantage and the good quality of earnings reported by the sector.

EQ

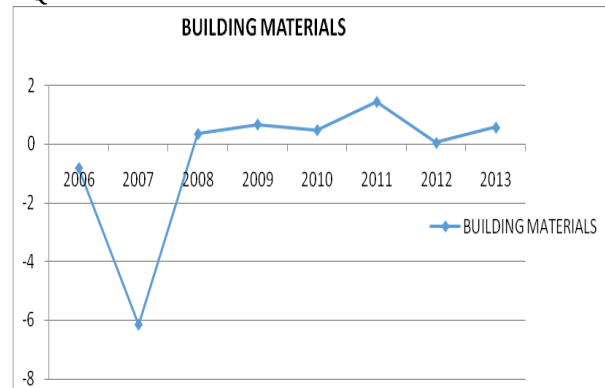


Figure 9: Trend Analysis of Earnings Quality (EQ) in Building Materials Sector between 2006 and 2013

Source: Author's Computation, 2016.

In information technology services sector, the trend of the accrual ratio as computed showed a fluctuating pattern between 2006 and 2007, and 2007 and 2008, 2008 and 2009 and the fluctuation took a varied pattern for the remaining period under study. There was a marginal increase in accrual ratio of about 24% between 2008 and 2009 and a further increase of about 40% in the ratio between 2009 and 2010. The fluctuating pattern in figure 10 showed a marginal negative decline in the accrual ratio of about 25% between 2010 and 2011. The decline became prominent between 2011 and 2012 while between 2012 and 2013, the accrual ratio returned a marginal increase of about 12%. This result is consistent with the study of Dichev and Graham (2013) which proved that quality earnings are sustainable and repeatable.

EQ

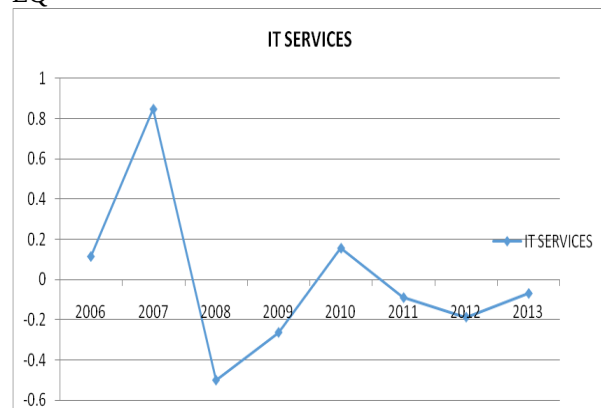


Figure 10: Trend Analysis of Earnings Quality (EQ) in IT Services Sector between 2006 and 2013

Source: Author's Computation, 2016.

Despite the volatility and uncertainties that characterised the entire economy and especially, those in the manufacturing industries, information and technology sector had improved earnings in most of the periods under investigation. The good earning quality pattern as found in this study, might be due to the vigorous expansion of the operations to several sectors barring certain unforeseen circumstances and government policies.

The financial sector was also not spared from fluctuation in the trend of its earnings quality. This could be seen from Table 2 and figure 11 where the first two years under study had the earnings quality dropping by about 52% but immediately picked up to -109%. The improvement in the sector's earnings quality was prominent between 2008 and 2009 while the trend fluctuated sharply between 2009 and 2010 and mildly between 2010 and 2011. However, the situation from 2011 through 2013 revealed a continuous decrease in the earnings quality of the financial sector. The fluctuating trend of earnings of Nigerian financial sector might have been complicated by the recapitalisation between 2006 and 2008, the adoption of new accounting standards (IFRS) or changes in accounting methodologies, other banking reforms as well as the mandatory uniform accounting year end which prevented banks from manipulation of earnings. These changes in accounting standards might have materially affected related ratios which would necessitate adjustments to be able to perform trend analysis.

EQ



Figure 11: Trend Analysis of Earnings Quality (EQ) in Financial Sector between 2006 and 2013

Source: Author's Computation, 2016

Analysis of trend of the earnings quality in energy equipment, petroleum and petrol product sector of the companies listed on the floor of Nigerian Stock Exchange was provided by Table 2 and figure 12. The figure revealed a decline in accrual ratio between 2006 and 2007, 2007 and 2008 through 2008 and 2009 which invariably implied an improvement in the earnings quality of the sector. The ratio increased spuriously between 2009 and 2010 by about 675%, and persisted through 2010 and 2011 with a further increase of 190% of the accrual ratio. However, between 2011 and 2012, there was improvement evident by negative decline of about 1,344% but between 2012 and 2013; the improvement was immediately reversed by about 1,243% increase in the computed accrual ratio. Evidently, the sector witnessed setback due to combination of disruptive factors including the failure of reform initiatives of the government such as the Petroleum Industry Bill, poor state of infrastructure including power supply. The crisis in the energy sector must have greatly impacted on the low quality of earnings in comparison to other sectors.

EQ

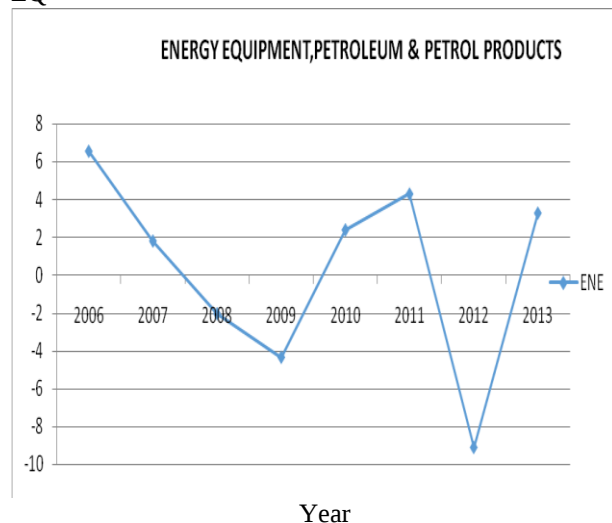


Figure 12: Trend Analysis of Earnings Quality (EQ) in Energy Equipment, Petroleum and Petrol Product Sector between 2006 and 2013

Source: Author's Computation, 2016.

The pattern of the accrual ratio computed on the companies in household durables sector presented a rise in the ratio between 2006 and 2007, 2008 and 2009, 2010 and 2011 as well as between 2011 and 2012. For all these periods, the quality declined while improvement in earnings quality was evident between 2007 and 2008, 2009 and 2010 and between 2012 and 2013. The details of the accrual were presented in Tables 2 and 3 and in figure 13.

EQ

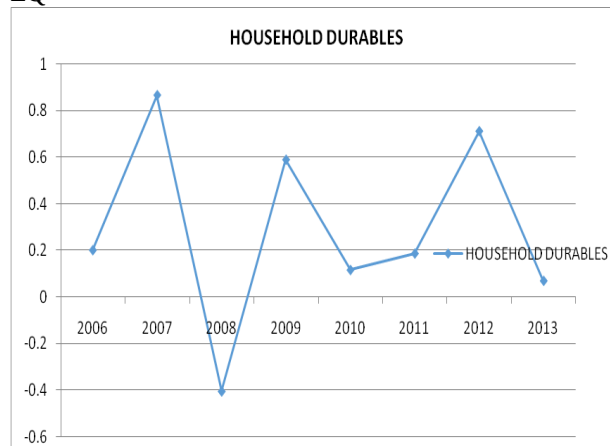


Figure 13: Trend Analysis of Earnings Quality (EQ) in Household Durables Sector between 2006 and 2013

Source: Author's Computation, 2016.

The results of the accrual ratio as computed on the companies in the Packaging and Containers sector showed a fluctuation in the trend. There was a negative decline in the percentage change of about 13% between 2006 and 2007; a marginal increase in the percentage change between 2007 and 2008 of about 15% while accrual ratio negatively decreased by about 11% between 2008 and 2009. Between 2009 and 2010, a negative reduction about 1% showed a marginal improvement in the earnings quality of the companies in the packaging and containers sector. Between 2010 and 2011, a further negative reduction in the ratio represented an improvement. The upward rise in the value of the accrual ratio between 2011 and 2012 and, between 2012 and 2013 was marginal and the fluctuation within the study period taken together ranged between 0.12 and -0.03. Figure 14 showed a clear picture of the reported pattern.

EQ

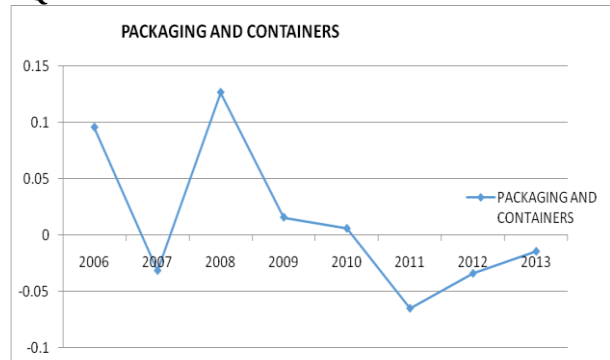


Figure 14: Trend Analysis of Earnings Quality (EQ) in Packaging and Containers Sector between 2006 and 2013

Source: Author's Computation, 2016.

The accrual ratio for chemical sector for the study period ranged between -0.002 and 0.015. Although, the ratio presented a fluctuating pattern, the trend revealed only marginal changes both upward and downward as presented in Table 2 as well as the graphical representation in figure 15. The specific years in which the earnings quality of the companies in this sector decline were 2009 and 2012. This trend is attested by the comments of both the management and chairman of the sampled company which were to attributed to unfavourable operation environment ranging from legal, illegal and political constraints during periods under study.

EQ

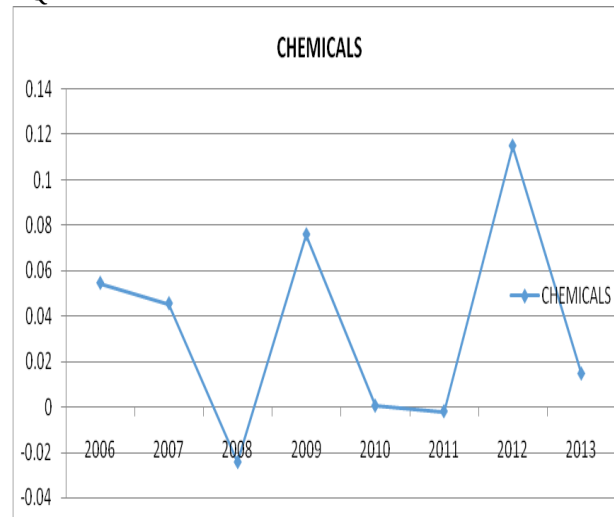


Figure 15: Trend Analysis of Earnings Quality (EQ) in Chemicals Sector between 2006 and 2013
Source: Author's Computation, 2016

Figure 16 showed the trend of earnings quality in tools and machines sector of the companies listed on the floor of Nigerian Stock Exchange. The details of the trend were provided by Table 2 as well as the percentage change of the accrual ratio provided in Table 3. The figure revealed a decline in accrual ratio between 2006 and 2007, 2007 and 2008 which invariably implied an improvement in earnings quality of the sector. The ratio increased slightly between 2008 and 2009 by about 6%, but the situation persisted as the ratio further increased between 2009 and 2010 by about 27%.

However, between 2010 and 2011, there was improvement by 26% which was followed by fluctuation in the trend by decline in the earnings quality from 2011 and 2012 through 2012 and 2013. The persistent decline in the earnings quality of the sector might be due to increase in finance costs, short and long term borrowings as against other items of the

financial statements which is an indication of future danger in the sector.

EQ

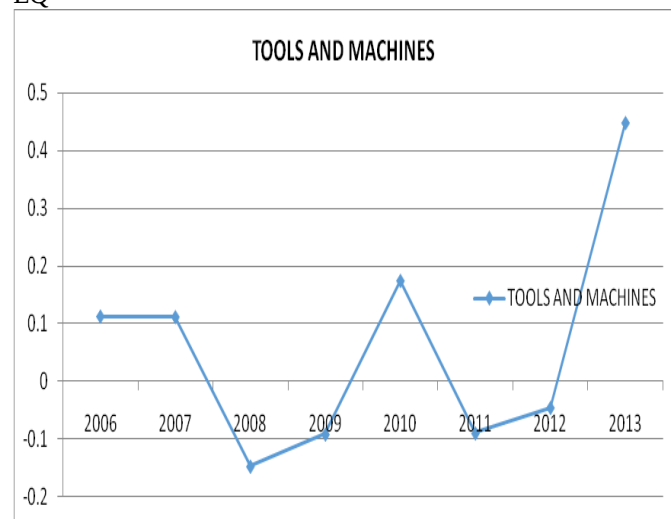


Figure 16: Trend Analysis of Earnings Quality (EQ) in Tools and Machines Sector between 2006 and 2013
Source: Author's Computation, 2016.

EQ

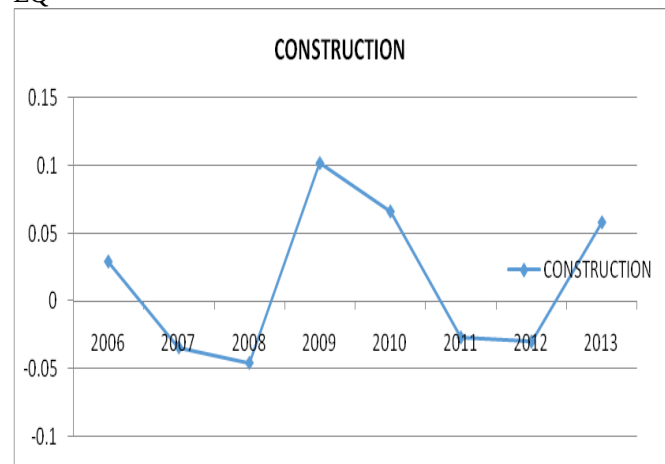


Figure 17: Trend Analysis of Earnings Quality (EQ) in Construction Sector between 2006 and 2013
Source: Author's Computation, 2016.

Trend analysis of earnings quality in construction sector (figure 17) revealed a repeated improvement through the period under study with the exemption of years 2009 and 2013 respectively. The range of the improvement was between 0.066 and -0.045. The sector witnessed increasingly better quality of earnings between 2006 and 2007, 2007 and 2008. But, between 2008 and 2009, there was a downward change in the earnings quality as revealed by the accrual ratio computed. Subsequently, the quality appreciated by -0.30% between 2009 and

2010. There was further appreciation between 2010 and 2011. The improvement persisted until 2011 and 2012 while between 2012 and 2013, accrual ratio increased by about 8%.

CONCLUSION

The results of the trend analysis of earnings quality showed that IT Services sector (0.00097) had the best average earnings quality performance, followed by packaging and containers (0.01246), construction (0.0148), chemical (0.0349), while agric/agro-allied (0.614) and food beverages (1.027) had the least average earnings quality. The study focused only on companies listed on the floor of Nigerian Stock Exchange, while unquoted companies were excluded. At the same time, the number of companies in each sampled sector was uneven as a result of the fact that only companies which remained in operation during the study periods with complete data were considered.

The study concluded that stock market participants could perform more excellently by analysing the earning quality trends of various listed companies as a further measure to strengthening their evaluations as well as enhancing the bases of making economic decisions. It was recommended that companies listed on the floor of Nigerian Stock Exchange should improve on measures that contribute to improving the quality of earnings reported so as to satisfy the expectation of the shareholders and other direct and indirect stakeholders without engaging in unscrupulous activities.

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