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Firm Characteristics and Performance Disclosure in Annual Reports of Nigerian Banks using the Balanced Scorecard

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Abstract: This study investigated the influence of four firm characteristics (size, organisational structure, age and systemic importance) on extent of performance disclosures by Nigerian banks using the balanced scorecard (BSC) model. The population of the study comprised of publicly-listed banks in Nigeria, in operation from 2012 to 2014. Using a self-designed disclosure checklist, the annual reports of a sample of 15 publicly quoted banks in Nigeria were content-analysed for performance disclosure for the period 2012-2014. Descriptive statistics, t-test and Analysis of Variance (ANOVA) were applied in data analysis, deducing inference at 5% significance level. It was observed that firms did not significantly differ in the extent of performance disclosure in each of the four BSC perspectives on one hand, and the overall BSC measure on the other hand, on the account of the four firm attributes examined. Considering that annual reports are mainstream amongst the media used to communicate firm performance to the public, it was recommended that preparers of such documents should consider disclosing financial and non-financial performance; this will not only provide a comprehensive basis to judge organisational performance, but will also assist in diffusing the clout created by asymmetry of information between preparers and users of performance reports.

Keywords: Balanced scorecard; Nigerian banks; performance disclosure; strategic management

JEL Classification: M10; M41

1. Introduction

It has been worryingly noted in literature (for example, Kaplan & Norton, 2001; Braam & Nijseen, 2008; Farshad, 2012; CIMA, 2014) that organisations excessively focus on financial results in performance reports by making use of accounting measures, thus downplaying the essence of non-financial performance measures. AICPA (1994), Boulton, Libert & Samek (2000), Eccles, Herz, Keegan & Phillips (2001), and Lev (2001) noted that various individuals and groups have called for greater disclosure of non-financial information. CIMA (2014) noted that the use of traditional financial performance metrics is widespread, but the practice has its problems—they only tell what has happened over a limited period in the immediate past, they are not futuristic, they are vulnerable to manipulation and they are not related to the strategic management of business due to their 'short-termism'. Ataollah, Wan & Veeri (2011) argued that the non-financial disclosures are more important to users of performance reports than the financial measures. They pointed that the rationale behind the preference for financial measures over the non-financial measure was that users of financial statements are usually frequented with, and are inadvertently familiar with three principal financial statements—

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the statement of financial position, the statement of financial performance and the statement of cash flow. While it is not the concern of this study to contribute to the debate on the superiority of non-financial performance measures over the financial measures and vice versa, or the effect of non-financial performance measures on the financial performance, it is admitted and supported that the disclosure of information on performance (whether financial or non-financial) that will meet the information needs of users of financial statements is important. A widely-acclaimed appraisal model that encapsulates both financial and non-financial measures is the balanced scorecard (BSC) introduced by Norton and Kaplan in 1992 (Kaplan & Norton, 1992; Kaplan & Norton, 1996; Woodley, 2006 cited in Etim & Agara, 2011; Wang, Li, Jan & Chang, 2013; Horngren, Datar & Foster, 2006; De Geuser, Mooraj & Oyon, 2009; Ing & Ing, 2016).

The BSC was developed to de-emphasize the excessive focus on financial metrics as a performance appraisal tool (Kaplan & Norton, 2001; Braam & Nijseen, 2008; Farshad, 2012). Wongkaev (2007) cited in Etim & Agara (2011) indicated that the BSC can be applied to any organisation, whatever its nature or characteristic. The BSC aims to 'balance' the performance lens by introducing, in addition to the subsisting financial perspective, three additional, non-financial perspectives — customer, internal growth and internal business process perspectives; making four perspectives altogether. The financial perspective tracks financial performance using ratios on profitability, liquidity, management efficiency, solvency and investment; the customer perspective tracks customer satisfaction, attitudes, and market share goals; the internal business process perspective evaluates condition of the company and changes in internal processes over a certain period of time; the learning and growth perspective focuses on how the ability to change and improve is sustained (Kaplan & Norton, 1996; Wang, et al, 2013). The three additional measures (customer, internal growth and internal business process) are considered more important because, though not financial, they eventually affect the financial results, in the sense that favourable changes in them would positively affect the financial position (Panday, 2005; Wang et al., 2013). The BSC does not serve the purpose of performance evaluation only; Norton and Kaplan proposed that it should be integrated into a firm's action plans, strategies and visions (Kaplan, 2001; Niven, 2012; Oztaysi, & ˙Sari, 2012).

Studies on BSC abound in developed countries but are scanty in developing countries like Nigeria since it was conceptualised and popularised by Kaplan and Norton in 1992 (Janota, 2008 cited by Sunita & Vinita, 2013; Afande, 2015). Worse still, the few researches on BSC were predominantly perceptional (reliance on the views of accounting and finance personnel), whereby firms were requested to respond to issues on the adoption of BSC by providing responses to questionnaire items (for example, studies by Cinquini & Tenucci, 2007; Braam & Nijseen, 2008; Fowzia, 2011; Steve & Fiona, 2015; Ahmed, Bahamman & Ibrahim, 2015; Ibrahim, 2015); this technique of evaluating BSC adoption may be deficient in that firms may be biased by providing misleading responses to create *hawthorne effect*; they could claim adoption of BSC to create favourable impression. To the extent that firms truly adopt BSC for performance evaluation, it should reflect in the performance reports issued by them. Stated differently, if it is true that a firm has adopted a BSC approach to performance measurement, especially at the organisational level, it is logical to expect that it should reflect in performance reporting documents.

Stemming from these observed gaps, the objective of the study was to therefore evaluate the extent to which firm characteristics influence the quality of performance disclosures in the way of the four BSC perspectives and the overall multi-perspective disclosure. The study however made a departure from erstwhile studies on BSC adoptions by using secondary data extracted from annual reports as against the use of primary data in most of the prior studies.

The rest of the paper is sectionalized into four parts (sections 2 to 5). In section 2, the contingency theory was discussed and contextualised in developing the research hypotheses. Research method is covered in Section 3. Section 4 delved into analysis and discussion of results. The paper is concluded in Section 5.

2. Literature Review and Hypotheses Development

The theory adopted for this study is the contingency theory. The contingency theory originated from the contingency approach to management which states that there is no one, universally applicable managerial approach that fits all situations. The usefulness of a managerial practice is therefore dependent on the prevailing organisational and environmental conditions. The contingency theory is an approach to the study of organizational behavior in which explanations are given as to how contingent factors such as technology, culture and the external environment influence the design and functioning of organisations. The assumption underlying contingency theory is that no single type of organizational structure is equally applicable to all business concerns; rather, organisational effectiveness is dependent on a fit or match between the type of technology, environmental volatility, the size of the organisation, the features of the organisational structure and its information system. Emmanuel, Otley & Merchant (1990) cited in Ajibolade (2013, p.134) in expounding on the contingency theory posited that "there is no universally appropriate accounting system applying equally to all organisations in all circumstances, implying that as the specific circumstances of an organisation alter, so should Management Accounting System adapt to remain effective". Islam & Hu (2012) noted that the contingency theory has recurrently been adapted and adopted in management accounting researches (for example, studies by Hofstede, 1983; Reid &Smith, 2000; Chenhall, 2003; Woods, 2009).

The contextualisation of the contingency theory to this study connotes that organizational circumstances or attributes should shape or influence the usage of management accounting technique such as the BSC. Prior researches in management accounting (for example, Khandwalla, 1972; Gordon & Miller, 1976; Hendricks, Menor & Wiedman, 2004; Tapanya, 2004; Ibrahim, 2015; Ajibolade, 2013; Quesado, Aibar-Guzmán & Rodrigues, 2016) have invoked the contingency theory to explain how organisational factors including age, size, structure, strategy, technology, environment, and market share affect the adoption of management accounting innovation .The firm attributes investigated in this study include: size (proxied by total asset, capital base, and license-type), organizational structure, age and systemic importance.

In Nigeria, the Central Bank of Nigeria (CBN) is the main regulatory body in the banking industry and communicates through the Monitory Policy Committee's (MPC) directives. Deposit money Banks in Nigeria have been classified on different basis using; (i)their licensing tier (regional, national and

international banks) ; (ii) their capital base (with minimum paid-up capital for regional, national and international banks being ₦10billion,₦25billion and ₦50billion respectively); (iii) balance sheet size (measured with total asset); (iv) type of organisational structure operated (holding structure and non-holding structure), (v) age (old generation and new generation banks); and (vi) systemic importance; eight banks were designated by CBN as Systemically Important Banks (SIBs) because they collectively account for 70% of the entire total assets, as a result their failure could pose a systemic risk to the banking industry and the larger economy (Bala-Gbogbo, 2011; Aminu, 2010; Akanbi, 2013; CBN, 2010; Obinna, 2012; Olokoyo, 2013; Aderinokun, Chima & Abiodun, 2013).

The application of the BSC by financial service firms has been a recurring subtheme in researches on BSC adoption (for example, Panday, 2005; Chavan, 2009; Sunita & Vinita, 2013; Ahmed et al, 2015; Aminu, Ahmed & Moutari, 2015; Ibrahim, 2015). For example, upon investigating BSC adoption by organisations in the Thai banking industry, Tapanya (2004) cited by Sunita & Vinita (2013) found that institutional factors play a decisive role in the selection of performance measurement systems such as the BSC. Based on these discussions, it is hypothesized that:

H_{01}: Firms do not significantly differ in their financial performance disclosures on the account of organisational characteristics

H_{02}: Firms do not significantly differ in their customer-perspective performance disclosures on the account of organisational characteristics

H_{03}: Firms do not significantly differ in their internal-business-process-perspective performance disclosures on the account of organisational characteristics.

H_{04}: Firms do not significantly differ in their learning-and-growth-perspective performance disclosures on the account of organisational characteristics

H_{05}: Firms do not significantly differ in their balanced scorecard performance disclosures on the account of organisational characteristics.

3. Research Method

The population of the study is comprised of publicly-listed deposit money banks on the Nigerian Stock Exchange (NSE) in operation from January 2012 to December 2014. As at January 2012, there were twenty two (22) deposit money banks (Akanbi, 2013; Olokoyo, 2013). Banks were selected within the sample period (2012-2014) in order to obtain data for a wider timeframe (three years). Using these criteria, the 15 banks that emerged across the three licensing tiers—regional, national and international banks were: Access Bank, Diamond Bank, Ecobank, Fidelity Bank, First Bank, First City Monument Bank (FCMB), Guaranty Trust Bank (GTB), Stanbic-IBTC Bank, Skye Bank, Sterling Bank, Union Bank, Unity Bank, United Bank for Africa (UBA), Wema Bank and Zenith Bank. Using a self-designed disclosure checklist constructed in line with key performance indicators (KPIs) for the BSC perspectives, the annual reports for the sample period (2012-2014) were content-analysed for disclosures on the four BSC perspectives. Although the BSC is a performance management model

used to provide performance information for internal use, it is assumed that much of such performance information will also flow into the financial reports.

The financial perspective had 18 items, the customer perspective had 18 items; the internal business perspective had 4 items and the learning and growth perspective had 8 items, making a total of 48 items in a year; the 3-year period for the 15 banks had a total of 2,160 observations. Four firm attributes— size (proxied by total asset, equity/capital base, type of operating license), organisational structure, firm age, and systemic importance — were also identified and extracted from the annual reports and Central Bank of Nigeria (CBN) publications for the 15 firms, across the three (3) years, making a total number of 270 observations. Overall, 2,430 items (2160 + 270) were processed for analysis.

To ensure that performance disclosures were 'balanced' or 'equal' across the four perspectives, the raw scores obtained for each firm across the three years from content-analysing the annual reports, using the disclosure checklist, were scaled by attaching equal weighting of 25% (25 for each of the four perspectives, making a total of 100) to each perspective. The total score obtained by a firm on each perceptive was denominated by the total score obtainable from that perceptive for the three years and was grossed up to 25 to even out the score across the four perspectives. The total score obtainable for each of the perspectives for the three years were; financial— 54 (maximum of 18 items per year for 3 years); customer— 54 (maximum of 18 items per year for 3 years); Internal business — 12 (maximum of 4 items per year for 3 years); and Learning and growth — 24 (maximum of 8 items per year for 3 years). The index for each perspective was obtained as specified in equations (1) to (5).

Financial perceptive Index (*FPI*): $X1 / 54 \times 25$ (1)

Customer perceptive Index (*CPI*): $X2 / 54 \times 25$ (2)

Internal business perceptive Index (*IBI*): $X3 / 12 \times 25$ (3)

Learning & Growth perceptive Index (*LGI*): $X4 / 24 \times 25$ (4)

BSC performance Index (BSCPI): $\sum(FPI, CPI, IBI, LGI)$ (5)

Where: $X1$, $X2, X3, X4$ represent actual scores of firms for the financial, customer, internal business, and learning & growth perspectives respectively.

The total Balanced Score Card performance index (BSCPI) for each firm, based on a scale of 100 (equation 5), was obtained by aggregating scores across each perspective in equations (1) to (4).

Descriptive statistics (frequency count, mean, standard deviation, minimum and maximum values and cross-tabulation) and inferential statistics (Kolmogorov-Smirnov test of normality, independent sample t-test, and one-way Analysis of Variance [ANOVA]) were engaged for analysis. Inferences were deduced at 5% level of significance.

4. Results and Discussion

4.1. Firm Characteristics

Statistics on firm attributes presented in Table 1 show that the number of firms were well distributed across the attributes. For Total Asset, 4 (26.7%) firms had asset size ranging from ₦0.1trillion to ₦0.99 trillion; 7 (46.7%) firms total assets ranged from ₦ 1.0trillion to ₦ 1.99 trillion; 2 (13.3%) firms had total asset of ₦ 2.0trillion to ₦ 2.99 trillion; and another 2 (13.3%) firms total assets ranged from ₦ 3.0 trillion and above. In terms of equity, the distribution in ascending order is; 4 (26.7%) firms' equity was in the bracket of ₦ 25 to ₦ 100 billion; 5 (33.3%) firms belonged to the ₦ 101billion to ₦ 200billion category; 3 (20%) firms had equity in the range of ₦ 201billion to ₦ 300 billion; 3 (20%) firms had a minimum equity of ₦ 301 billion. One of the firms representing 6.7% had a regional banking license; 4 (26.7%) and 10 (66.7%) firms had national and international operating licenses respectively. 11 (73.3%) firms had adopted a non-holding company structure, while the rest (4 firms, representing 26.7%) adopted a holding company structure. For the age of firm, 1 (6.7%) was in the bracket of *up to 10 years*; 8 (53.3%) in the *11- 40 years* category; 3 (20%) in the *41-90 years* category and 3 (20%) were in the *91 years and above* stratum. 8 (53.3%) firms belonged to the systemically important bank (SIBs) category and 7 (46.7%) were in the non- systemically important bank (non-SIBs) category.

Table 1. Firm Characteristics of Nigerian Banks

Firm Attribute	*Category*	*Freq.*	*%*	*Total*
Total asset (₦' trillion)	0.1 to 0.99 trillion	4	26.7	
	1.0 to 1.99 trillion	7	46.7	
	2.0 to 2.99 trillion	2	13.3	
	3.0 trillion and above	2	13.3	15
Equity (₦' billion)	25 to 100 billion	4	26.7	
	101 to 200billion	5	33.3	
	201 to 300 billion	3	20.0	
	301 billion and above	3	20.0	15
Operating License	Regional	1	6.7	
	National	4	26.7	
	International	10	66.7	15
Firm Structure	Non-holding company structure	11	73.3	
	Holding company structure	4	26.7	15
Firm Age	Up to 10 years	1	6.7	
	11- 40 years	8	53.3	
	41-90 years	3	20.0	
	91 years and above	3	20.0	15
Systemic Importance	Non- SIB	7	46.7	
	SIB	8	53.3	15

Overall, results in Table 1 suggest that the banks were disturbed across the six firm attributes thus providing a good basis for examining BSC performance disclosures of the firms using different attributes.

4.2. Test of Normality

In deciding on the use of parametric or non-parametric statistics for inferential analysis, normality was established using the Kolmogorov-Smirnov test. Gupta (1999) recommended that normally distributed data should be analysed using parametric inferential statistics, but data violating the normality assumption should be analysed using non-parametric statistics. A Kolmogorov-Smirnov test with p > .05 implies that distribution of the sample is not significantly different from a normal distribution, but if the result is opposite (i. e. p < .05), that means the distribution is non-normal (Gupta, 1999; Landau & Everitt, 2004). Observing that all five items [Financial (p = .910); Customer (p = .973); Internal business process (p = .134); Learning and growth (p =. 887); BSC Performance Index (p = .852)] have p values > .05, parametric statistical tools (one-way ANOVA and independent t-test) were utilised for inferential analysis.

4.3. Interaction between Firm Characteristics and the BSC perspectives

Influence of the six firm characteristics on disclosure as per each of the four BSC perspectives was carried out using the one-way ANOVA and independent sample t-test. The p values produced by the interaction between the variables are summarised in Table 2.

Table 2. Firm Characteristics and BSC Perspectives

Attributes / Perspectives	Total Asset	Equity	Operating license	Organisational structure	Age	Systemic importance
Financial	.099	.404	.820	.078	.240	.341
Customer	.420	.634	.530	.057	.977	.191
Internal Business	.790	.478	.430	.291	.921	.352
Learning &growth	.495	.234	.547	.545	.010*	.020*

**p value significant at 5%*

Using Total asset of firms as the grouping variable, the performance disclosures of firms do not significantly differ. Specifically, the financial perspective p value = .099 > .05; customer perspective p value = .420 > .05; internal business perspective p value = .790 > .05; and learning & growth perspective p value = .495 > .05. It is concluded that firms do not significantly differ in the four BSC perspectives on the account of Total asset.

Using Equity as a basis to segment entities, firms do not significantly differ in performance disclosure in the financial perspective (p = .404 > .05); customer perspective (p = .634 > .05); internal business perspective (p = .478 > .05); and learning & growth perspective (p = .234 > .05). Total assets and equity were used as proxies for firm size. Since both bases separately establish no significant difference in scores across perspectives, it is concluded that firms do not significantly differ in the four BSC perspectives on the account of their sizes.

Differences in firms' performance across the four BSC perspectives were analysed using type of operating license as grouping variable. Performance disclosures on the financial perspective (p = .820 > .05); customer perspective (p = .530 > .05); internal business perspective (p = .430 > .05); and learning & growth perspective (p = .547 > .05) were not statistically significant at 5% significance

level. It is concluded that firms do not significantly differ in the BSC perspectives with respect to the type of their operating license.

Analysis of the differences in firms' performance across the four BSC perspectives using type of organisational structure presented in Table 2 shows that at 5% significance level, financial perspective (p = .078 > .05); customer perspective (p = .057 > .05); internal business perspective (p = .291 > .05); and learning & growth perspective (p = .545 > .05) were not statistically significant. It is therefore concluded that firms do not significantly differ in the four BSC perspectives with respect to their organisational structure.

Using firm age as grouping variable, result of the analysis of performance in the four BSC perspective shows no statistically significant difference at 5% significance level in three perspectives—financial perspective (p = .240 > .05); customer perspective (p = .977 > .05); and the internal business perspective (p = .921 > .05). Difference in disclosure on Learning & growth perspective is significantly different (p = .010 ≤ .05). In investigating the cause of difference, cross-tabulation analysis was carried out (Table 3).

Table 3. Cross-tabulation of Firm Age and Learning & Growth Perspective

		Learning & Growth Perspective								Total	
		6.25	**10.42**	**11.46**	**12.50**	**13.54**	**14.58**	**15.63**	**18.75**		
Firm Age	Up to 10 years	0	0	0	1	0	0	0	0	1	12.5000
	11- 40 years	0	0	0	1	1	3	2	1	8	14.9740
	41-90 years	1	1	1	0	0	0	0	0	3	9.3750
	91 years & above	1	1	0	1	0	0	0	0	3	9.7222
	Total	**2**	**2**	**1**	**3**	**1**	**3**	**2**	**1**	**15**	12.6389

In Table 3, most of the firms in the lower age bracket of *up to 10 years* and *11-40 years* (*n* = 9 [1 + 8], 60%) had a minimum score of 12.50; conversely, the score ranging from 6.25 to 11.46 is all attributable to 5 firms (representing 33.3% of the 15 firms) out of the entire 6 firms in the higher age bracket of *41-90 years* and *91 years and above*. It was only 1 (6.7%) firm in the age bracket of *91 years and above* that has a score of 12.50. The inference deducible from analysis of result in Table 3 is that younger firms appear to disclose more than the older ones (mean score across age brackets corroborates this) and the difference in mean is statistically significant.

Analysing disclosure in relation to Systemic importance, extent of disclosure from the financial perspective (p = .341 > .05); customer perspective (p = .191 > .05); and the internal business perspective (p = .352 > .05) were not statistically different between SIBs and non-SIBs. Firms differed in performance disclosures from the Learning & Growth Perspective (p= .020 ≤ .05). The mean score of the Non-SIBs group as per the learning & growth perspective is 10.5655, as against that of the SIBs group which stood at 14.4531 (Table 4).

Table 4. Cross-tabulation of Systemic importance and Learning & Growth Perspective

	Learning & Growth Perspective	Total	Mean

	6.25	10.42	11.46	12.50	13.54	14.58	15.63	18.75		
Systemic Importanc Non-SIB	2	1	0	3	1	0	0	0	7	10.5655
SIB	0	1	1	0	0	3	2	1	8	14.4531
Total	**2**	**2**	**1**	**3**	**1**	**3**	**2**	**1**	**15**	

In Table 4, most of the SIBs (6 out of the total of 8 firms) have index ranging from 14.58 to 18.75; none of the non-SIBs has an index score in that range. Instead, all of the non-SIBs (7 firms) have score ranging from 6.25 to 13.54; this contrasts sharply with 2 SIBs in that category. It is concluded, therefore, that SIBs disclosed more than the non-SIBs in terms of the learning & growth perspective and the difference is statistically significant.

4.4. Interaction between Firm Characteristics and BSC Performance Disclosure Index

Differences in BSC performance disclosure index (BSCPI) of firms was analysed using the six firm attributes. Results of the analysis are presented in this section, under each of the firm attributes in the following order— total asset, equity, type of operating license, type of organisational structure, Age and systemic importance.

Total Assets

Result of analysis on BSC performance using total assets of firms is presented in Table 5. The stratification of firms into four groups shows that the minimum, maximum and mean scores of the four groups differ. Firms in the *₦0.1 to 0.99 trillion* category have a group mean score of 58.8542; those in the *₦ 1.0 to ₦ 1.99 trillion* stratum, a mean of 57.2586; the *₦ 2.0 to ₦ 2.99 trillion* category with a mean of 64.5255; and the ones in *₦ 3.0 trillion and above* category have a mean score of 60.9954. There is evidence of rise and fall in mean scores across the categories of total assets, establishing further that the mean score fluctuates across the classes of total assets. Inferential analysis result in Table5 however showed that the difference in performance is not statistically significant at 5% significance level ($p = .527 > .05$).

Table 5. BSC performance index across Firms based on Total Asset

Total asset (measured in ₦' Trillion)	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Mini-mum	Maxi-mum
					Lower Bound	Upper Bound		
0.1 to 0.99 trillion	4	58.8542	4.98761	2.49380	50.9178	66.7906	53.47	65.28
1.0 to 1.99 trillion	7	57.2586	7.34193	2.77499	50.4684	64.0487	46.99	65.63
2.0 to 2.99 trillion	2	64.5255	3.51917	2.48843	32.9070	96.1439	62.04	67.01
3.0 trillion & above	2	60.9954	3.10996	2.19907	33.0535	88.9373	58.80	63.19
Total	15	59.1512	6.03621	1.55854	55.8085	62.4940	46.99	67.01

Equity

Result of analysis on BSC performance using equity of firms as a basis for creating groups is contained in Table 6. The minimum, maximum and mean scores of firms differ across the four classes of equity or capital base. Firms in the *₦25 to 100 billion, ₦ 101 to 200billion, ₦ 201 to 300 billion* and *₦ 301 billion and above* categories have mean scores of 58.8542, 57.4537, 60.1852 and 61.3426 respectively. The standard deviation scores in each of the equity class establish that are no marked fluctuation from the mean score in each stratum. There is evidence of fluctuation in mean scores across equity categories; inferential analysis result however shows that the difference in performance among firms is not statistically significant at 5% significance level (p = .861 > .05).

Table 6. BSC performance index based on Equity of Firms

Equity (Measured in ₦' billion)	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Mini-mum	Maxi-mum	ANOVA p value
					Lower Bound	Upper Bound			
25 to 100 billion	4	58.8542	4.98761	2.49380	50.9178	66.7906	53.47	65.28	.861
101 to 200billion	5	57.4537	6.44136	2.88067	49.4557	65.4517	46.99	64.47	
201 to 300 billion	3	60.1852	10.64752	6.14735	33.7353	86.6351	47.92	67.01	
301 billion & above	3	61.3426	2.27983	1.31626	55.6792	67.0060	58.80	63.19	
Total	15	59.1512	6.03621	1.55854	55.8085	62.4940	46.99	67.01	

Type of Operating License

Result of analysis of BSC performance of firms using operating license as a basis for segmentation are presented in Table 7. Statistics on dispersion (standard deviation, standard error, lower class and upper class boundaries) was not generated for the firm in the regional license category as it was only one firm that was in the class, which is also responsible for the sameness of the minimum and maximum scores (56.94). A comparison of the minimum, maximum and mean scores across licensing groups shows that there are differences in value in these measures of central tendency. The mean score for the only regionally-licensed firm is 56.9444, which is higher than the mean score for firms operating with national license (mean = 56.3657) but lower than the mean score for internationally-licensed firms

(mean= 60.4861). Inferential analysis however proves that the difference in BSC performance of the firms is not significantly different at 5% significance level (p = .513> .05).

Table 7. BSC performance index based on Operating Licenses of Firms

License Type	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Mini-mum	Maxi-mum	ANOVA p value
					Lower Bound	Upper Bound			
Regional	1	56.9444	.	.	.	.	56.94	56.94	.513
National	4	56.3657	7.89416	3.94708	43.8044	68.9271	46.99	65.28	
International	10	60.4861	5.47138	1.73020	56.5721	64.4001	47.92	67.01	
Total	15	59.1512	6.03621	1.55854	55.8085	62.4940	46.99	67.01	

Organisational structure

Firms were segmented using the type of organisation structure as the basis for grouping, and the extent of BSC performance disclosure was assessed (results reported in Table 8). The minimum, maximum, mean and standard deviations of the two groups differ. Firms with holding company structure have a higher mean score (62.1817) in comparison to the ones with non-holding structure (mean= 58.0492). Inferential analysis result established that the difference in mean score between the two groups is not statistically significant (p = .255> .05), hence inferential evidence does not support difference in extent of performance disclosure of firms.

Table 8. BSC performance index based on organisational structure of Firms

Organisational Structure	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Mini-mum	Maxi-mum	t-test p value
					Lower Bound	Upper Bound			
Non-holding	11	58.0492	6.28470	1.89491	53.8271	62.2714	46.99	65.63	.255
Holding structure	4	62.1817	4.65596	2.32798	54.7730	69.5904	57.64	67.01	
Total	15	59.1512	6.03621	1.55854	55.8085	62.4940	46.99	67.01	

Firms' Age

In Table 9, the results obtained from analysing BSC performance of firms using age as grouping variable is presented. The minimum, maximum and mean values across the four age brackets differ, which could be interpreted to mean that firms differ in the extent of performance disclosure on the account of their age. Firms in the age bracket *11- 40 years* had the highest mean score of 59.7656, followed by the one in the *Up to 10 years* bracket with a mean of 59.7222; firms in the bracket of *41-90 years* and *91 years and above* had mean score of 59.1435 and 57.3302 respectively; there is rise and fall of mean score across the four age

brackets. The difference in performance among firms across the age bracket is not statistically significant at 5% (p = .959> .05).

Table 9. BSC performance index across Age of firms

Firm Age	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Mini-mum	Maxi-mum	ANOVA p value
					Lower Bound	Upper Bound			
≥10 years	1	59.7222	.	.	.	.	59.72	59.72	.959
11- 40 years	8	59.7656	5.90324	2.08711	54.8304	64.7009	46.99	65.63	
41-90 years	3	59.1435	7.03357	4.06083	41.6712	76.6159	53.47	67.01	
≤ 91 years	3	57.3302	8.77291	5.06504	35.5371	79.1234	47.92	65.28	
Total	15	59.1512	6.03621	1.55854	55.8085	62.4940	46.99	67.01	

Systemic Importance

Upon grouping firms into two categories using systemic importance, the result generated from analysis is summarised in Table 10. The SIBs have a higher mean score (mean = 60.2286) than the non-SIBs (mean = 57.9200). Both groups also differ with respect to their minimum and maximum values. Though the SIBs outperformed the SIBs per disclosure as revealed by descriptive analysis, the extent of difference in disclosure between the two groups is not so pronounced as to retain statistical significance at 5% significance level (p = .480 > .05) [Table 10].

Table 10. BSC performance index based on Systemic Importance of Firms

Systemic Importance	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Mini-mum	Maxi-mum	t-test p value
					Lower Bound	Upper Bound			
Non- SIB	7	57.9200	6.07091	2.29459	52.3053	63.5346	47.92	65.28	.480
SIB	8	60.2286	6.19987	2.19199	55.0454	65.4118	46.99	67.01	
Total	15	59.1512	6.03621	1.55854	55.8085	62.4940	46.99	67.01	

4.5. Test of Hypotheses

The summary of results of the various statistical analyses relevant to test the hypotheses is provided in Table 11.

Table 11. Summary of results on Hypotheses-testing

Hypo-thesis	*Proposition*	*Firm Attribute*	*P value*	*Decision at 5% sig.*
H_{01}	Firms do not significantly differ in their financial performance disclosures on the account of organisational characteristics	Total Asset	.099	Supported
		Capital base	.404	Supported
		License	.820	Supported
		Structure	.078	Supported
		Age	.240	Supported
		Systemic Importance	.341	Supported
H_{02}	Firms do not significantly differ in their customer-perspective performance disclosures on the account of organisational characteristics	Total Asset	.420	Supported
		Capital base	.634	Supported
		License	.530	Supported
		Structure	.057	Supported
		Age	.977	Supported
		Systemic Importance	.191	Supported
H_{03}	Firms do not significantly differ in their internal-business-process-perspective performance disclosures on the account of organisational characteristics	Total Asset	.790	Supported
		Capital base	.478	Supported
		License	.430	Supported
		Structure	.291	Supported
		Age	.921	Supported
		Systemic Importance	.352	Supported
H_{04}	Firms do not significantly differ in their learning-and-growth-perspective performance disclosures on the account of organisational characteristics	Total Asset	.495	Supported
		Capital base	.234	Supported
		License	.547	Supported
		Structure	.545	Supported
		Age	.010	Not supported
		Systemic Importance	.020	Not supported
H_{05}	Firms do not significantly differ in their balanced scorecard performance disclosures on the account of organisational characteristics	Total Asset	.527	Supported
		Capital base	.861	Supported
		License	.513	Supported
		Structure	.255	Supported
		Age	.959	Supported
		Systemic Importance	.480	Supported

All the six firm attributes examined support the acceptance of the null of hypothesis one; hence, the H_{01} that *firms do not significantly differ in their financial performance disclosures* is retained. In hypothesis two, all the six firm attributes examined support the acceptance of the null hypothesis; hence, H_{02} that *firms do not significantly differ in their customer-perspective performance disclosures* is retained. All the six firm attributes examined support the acceptance of the null hypothesis three (H_{03}); thus, it is concluded that *firms do not significantly differ in their internal-business-process-perspective performance disclosures.* In hypothesis four, four out of the six firm attributes examined support the acceptance of the null hypothesis, hence, the H_{04} that *firms do not significantly differ in their learning-and-growth-perspective performance disclosures* is retained. In hypothesis five, all the six firm attributes investigated support the acceptance of the null hypothesis, therefore the H_{05}that *firms do not significantly differ in their balanced scorecard performance disclosures* is retained.

4.6. Discussion

Descriptive analysis provided *prima facie* evidence that firms differ in their BSC performance disclosure using the six firm characteristics. Inferential analysis however established that the differences in extent of performance disclosures are not statistically significant.

An attempt was made to tie or reconcile the extent of disclosures in each of the four perspectives and the overall BSC performance disclosure with firm attributes as done in earlier studies that invoked the contingency theory to adduce the magnitude of BSC adoption by firms (for example, Hendricks et al., 2004; Tapanya, 2004; Ibrahim, 2015), using six firm characteristics. Except for the learning and growth perspective which evinced statistically-proven difference in disclosures using systemic importance and age as grouping variables, there were no strong, statistically significant, inferential evidences that firms differ in the extent of performance disclosures on the account of their attributes. Stated differently, though descriptive analysis provided some evidence, on the surface, that firms differ in their disclosures using the six firm characteristics, inferential analysis contrarily established that the differences in disclosure extent were not statistically significant. Whilst it may have been expected that the larger banks (in terms of total asset and capital-base) would have higher indices and more disclosures in comparison to the smaller banks, this could not be established. Some smaller banks even had higher score than the bigger banks. While it may have also been expected that the systemically important banks (SIBs) will score higher and disclose better than the non-SIBs— descriptive analysis confirms this though— inferential analysis demonstrated that the difference in performance between the SIBs and non-SIBs is not that pronounced to retain statistical significance; in effect, there is really no difference in disclosure performance (retention of the five null hypotheses).

Again, while it may have been expected that performance disclosures among firms will differ on the account of the type of banking license operated, with internationally-licensed and/or nationally-licensed banks disclosing more than regionally- licensed ones, this was not the case as the scores among the three groups were not different enough to retain statistical significance— inferential analysis did not support this supposition. Surprisingly, the regionally-licensed bank performed better in terms of disclosure than the nationally-licensed bank on the average. Although firms operating holding structure expectedly performed better than the ones operating non-holding structure— inferring from descriptive analysis, it was surprising that the difference in extent of performance disclosure was not so pronounced as to retain statistical significance at 5% significance level. The

mean score seem to be declining with the increase in the age of firms; for example, firms in age bracket of *11- 40 years* had mean score (mean = 59.77) higher than the ones in the *41-90 years* age bracket (mean = 59.14); those in the age bracket of *41-90 years* had mean score (mean = 59.14) higher than the ones in the *91 years and above* category (mean = 57.33). It was deduced that the new generation banks disclosed more, from the BSC perspective, than the old generation banks. Furthermore, while it may have been expected that the new or younger generation banks will disclose more because of their willingness, agility, appetite and strategic readiness to embrace change and new innovation, the inferential analysis of differences in performance disclosure in terms of age was not statistically significant. Firms do not significantly differ in the extent of disclosure in each of the BSC perspective and the overall BSC performance on the account of organisational characteristics, suggesting that Nigerian banks do not really follow a balanced score card approach. This observation concurs with earlier studies (for example, Janota, 2008 cited in Sunita & Vinita. 2013; Afande, 2015) that concluded that the adoption of modern management accounting techniques (such as the BSC) is still lacking in developing countries.

5. Conclusion

Contrary to expectation in this study, none of the six firms' attributes examined significantly accounted for differences in the extent of performance disclosures among firms in each of the four BSC perspectives on one hand, nor the overall multi-perspective performance disclosure on the other. However, this study is not without its limitations—whilst it is admitted that some BSC measures would not be disclosed in published annual reports, the disclosure checklist was designed with items of the BSC perspective that firms could disclose in mind as noted by Debusk & Crabtree (2006) and Wang, et al. (2013). Since annual reports are mainstream amongst the means used to communicate performance to the public, it is recommendable that preparers of such documents should consider disclosing financial and non-financial performance measures; this will not only help a great deal in providing a comprehensive basis to judge organizational performances but will also assist in diffusing the clout created by asymmetry of information between preparers and users of performance reports.

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Appendix 1. Firms Disclosure Performance Based on Balanced Scorecard Assessment

FIRM CODE	SCORE	Financial	Customer	Internal business	Learning & growth	Total BSCP Index
FR1	Raw	42	38	5	14	
	Scaled	19.44	17.59	10.42	14.58	62.04
FR2	Raw	42	40	5	10	
	Scaled	19.44	18.52	10.42	10.42	58.80
FR3	Raw	30	42	8	15	
	Scaled	13.89	19.44	16.67	15.63	65.63
FR4	Raw	42	27	6	15	
	Scaled	19.44	12.50	12.50	15.63	60.07
FR5	Raw	42	32	8	13	
	Scaled	19.44	14.81	16.67	13.54	64.47
FR6	Raw	45	30	6	12	
	Scaled	20.83	13.89	12.50	12.5	59.72
FR7	Raw	39	36	5	12	
	Scaled	18.06	16.67	10.42	12.5	57.64
FR8	Raw	39	24	6	6	
	Scaled	18.06	11.11	12.5	6.25	47.92
FR9	Raw	36	33	7	10	
	Scaled	16.67	15.28	14.58	10.42	56.94
FR10	Raw	51	24	6	6	
	Scaled	23.61	11.11	12.50	6.25	53.47
FR11	Raw	54	39	6	11	
	Scaled	25.00	18.06	12.50	11.46	67.01
FR12	Raw	36	31	6	14	
	Scaled	16.67	14.35	12.50	14.58	58.10
FR13	Raw	54	33	6	12	

	Scaled	25.00	15.28	12.50	12.50	65.28
FR14	Raw	43	26	6	18	
	Scaled	19.91	12.04	12.50	18.75	63.19
FR15	Raw	21	31	4	14	
	Scaled	9.72	14.35	8.33	14.58	46.99
AVERAGE	**Raw**	**41**	**32**	**6**	**12**	
	Scaled	**19.0123**	**15.0000**	**12.5000**	**12.6389**	**59.1512**

Source: Authors' computation (2016)