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Fair Value Gains or Lossses and Earnings Quality of Listed Nigerian Deposit Money Banks.

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Abstract

Nigeria has taken a number of steps to increase the accuracy of reported results, which includs the adoption of the International Financial Reporting Standards, that involve fair value to measure for specific assets along with liabilities. In this study, the effect of fair value gains and losses (FVGL) and extra comprehensive income (OCI) on the standard of earnings reported by deposit money institutions in Nigeria was examined. The study uses a correlational research methodology and looked at information gathered between 2016 and 2021 from thirteen Nigerian banks. Ordinary least square (OLS) was used in conjunction with SPSS (16 Ver) to evaluate two hypotheses. The outcome showed a positive and substantial correlation between the fair value gains/losses recorded in net income (NI) as well as the earnings quality reported by Nigerian DMBs. While the fair value gains/losses in other comprehensive income is not significantly associated with earnings quality reported by listed Nigerian DMBs. The study is consistent with agency & signalling theory used to frame the research and recommends that regulatory authorities should provide training via workshops & seminars for preparers of financial statement to reduce the complexity in fair value measurement of financial instruments. Also, further research is recommended on the topic to include the influence CG the above relationship.

Keywords: *Fair value gains and losses, earnings quality, International Financial Reporting Standards (IFRS)*

Introduction

International Financial Reporting Standard (IFRS) was adopted, there has been a paradigm shift in how earnings and other financial statement components are determined all over the world. The way that information is reported in a company's financial statement has changed significantly under IFRS. For instance, the use of the fair value accounting (FVA) model, which is seen as the most significant impact of IFRS, has sparked some criticism of the global implementation of the standards. Contrary to the Historical cost accounting (HCA) model used by Nigerian Generally Accepted Accounting Practices (N-GAAP), IFRS required the use of fair value estimates in the valuation of some financial assets.Supporters held that fair value, which represents an asset's true worth and gives up-to-date information, is more relevant for economic decision-making (Bello et al., 2016). The FVA regulations (IAS 39, 40, & IFRS 7, 9, & 13) have some consequences in the computation of income along with other parts of financial statements for all listed corporations in Nigeria as a result of the implementation of the IFRS in 2012. Generally, IFRS was introduced in Nigeria to make sure that organisations

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create most decision-useful financial reports, in terms of decision-relevance, comparability, and reliability of the financial statements to gain investing community confidence (Adeyemi et al, 2021; Bello et al, 2016). Although IFRS was considered be a high-quality standard that can help to improve the quality of annual reports, some earlier studies have noted that IFRS is also thought to be a highly principle-based standard with some built-in flexibility, meaning that significant managerial judgement and some degree of discretion are allowed in the determination of reported values.

The banking industry will be impacted by the implementation of FVA standards, specifically with regard to how losses or gains linked to the implementation of fair value to financial instruments under IFRS 13 (Fair Value Measurement & Disclosures) would be recognised. The benefit of this strategy is that it may enable banks to measure financial instruments with higher-quality data, allowing such measurements to better reflect the economic reality of those assets.Where as, the use of the FV standard may allow to manager with receptive opportunities practice and to manipulate results, which is the negative consequence based on professional judgement. In a similar vein, providing for losses exhibits pro-cyclical behaviour, which drives higher provisioning during downturns in the economy. Therefore, in difficult times, an increase in losses could have an adverse effect on the bank's profit, erode the bank's capital, limit its lending to creditworthy borrowers, and ultimately spark a credit crisis that could exacerbate the economic crisis or spark a bank run that could result in distress, as was the case with Fin-bank, Intercontinental Bank, etc. between 2009 and 2014 (Ahmed, 2014). Additionally, Chukwu et al. (2020) claim that numerous companies saw significant losses on their derivative holdings, which alarmed investors and regulators since they suggested that banks would be leveraging security gains and losses to manipulate reported earnings through gains trading. For instance, the case of Diamond Bank distress that led to the merger with Access Bank toward the end of 2018 is still fresh in mind. Additionally, new information at the beginning of 2019 concerning seven Nigerian deposit money banks (DMBs) engaging in covert merger and acquisition negotiations as a result of

distress issues caused many depositors, regulators, and analysts to become uneasy and concerned (Onuoha et al., 2021). Thus, Abiahu et al, (2020) submit that some Nigerian bankers, academia, Practitioners, and financial analyst have expressed concern about the application of this model in the banking sector, due to its complexity and unavailability of market data. For instance, PricewaterhouseCoopers (2015) and the Big 4, a significant audit firm in the Nigerian banking sector, expressed some concern about the difficulties faced by listed DMBs in developing nations like Nigeria regarding FVA due to the market's lack of activity for the majority of financial assets (especially debt instruments). The business believes that this may encourage listed DMBs in Nigeria to primarily use discretionary fair value measurement inputs (levels 2 and 3), which would lower the quality of reported profits and increase the risk of accounting earnings manipulation. The company went on to say that the high price of fair value assessment would encourage listed DMB management to take shortcuts in an effort to lower the expense of stewardship reporting. Thus, it is inferable from much literature, that this paradigm shift to FVA based reporting in banks raised some desirability concerns, particularly, in an emerging market like Nigeria with illiquid markets, where unobservable measurement data inputs may frequently be used, potentially leading to measurement errors and/or intentional biases which may impact the EQ of DMBs.

Furthermore, there hasn't been any agreement in the research on a standard definition or the best technique to gauge profits quality. Most often, numerous definitions and a number of measuring techniques have been developed to meet the needs of certain research projects. Because there are no established precise accounting processes that can provide higher-quality earnings, the issue persists despite the wealth of knowledge. Thus, as a result of this inconsistent definition and measurement approach, there exit mixed and conflicting reports from prior research on how a bank's earnings could be regarded as being of high quality. According to Ewert & Wagenhofer, (2014), this led some researchers in financial institutions to adopt multidimensional construct measures to assess EQ, because earnings is the central focus for performance evaluation in financial institutions, and quite sensitivity to different earning properties. This study, which follows earlier empirical researchers (e.g. Francis et al., 2004; Dechow et al., 2010; Sodan, 2015; Paoloni et al., 2017), adopts earnings quality as a multidimensional concept and investigates the impact of FV gains/losses on the four most popular EQ accounting measures—persistency, predictability, volatility, and smoothing—in an aggregate form.

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Unfortunately, this approach has not been tested in the Nigerian context. So, the following are some possible ways that this research might add to the body of knowledge. First off, to the best of my ability, this is the first research looking at how FVA affects a variety of earnings qualities in Nigeria, specifically in the banking sector, using the Aggregate Earnings Quality (AEQ) metric. Most previous related studies examined a single proxy of EQ measure, mostly predictability (e.g Tunji et al, 2019; Uyanna et al, 2019 e.t.c).Second, prior study examined the banks' earnings quality from both a knowledge-based and an opportunism earnings management perspective. The majority of bank-related research conducted in Nigeria explore the flexibility provided by FVA from the standpoint of opportunistic earnings management. The findings typically support managers' opportunistic use of the discretion granted by FVA (Adeyemi et al., 2021; Tunji et al., 2019; Uyanna et al., 2019). A small amount of research has been done on banks' EQ from an information viewpoint (such as earnings persistence, earnings predictability, etc.) in the context of fair value calculation. By examining how accurete value accounting improves the informational qualities of reported earnings in Nigerian DMBs, this study seeks to fill the vacuum in the literature. Lastly, the study by Filip and Raffournier (2010) opined that the value relevance of earnings in transitional economies (like Nigeria) differs from that in developed markets, but research on this subject from these parts of the world is very scanty. Hence, the need for this study to contribute to the reduction of this scarcity in literature. The current research paper's goal is to investigate how FV gains and losses, which result from using the FVA model to quantify assets, affect Nigerian DMBs' EQ. This study is significant to the regulatory agencies, such as; the Financial Reporting Council of Nigeria, Central Bank of Nigeria, Security and Exchange Commission, etc, can benefit from empirical evidence produced by the study on the implication and the usefulness of fair value based on accounting estimates in providing financial distress signals for the quick intervention of these agencies.

Statement of Hypothesis

H_{o1} -The percentage of total FV gains/losses on financial assets/liabilities (through the P&L) in Net income has no significant effect on EQ reported by Nigerian DMBs.

H_{o2} -The percentage of total FV gains/losses on financial assets/losses (FVTOCI) in Total comprehensive income(TCI) has no significant effect on EQ reported by Nigerian DMBs.

A review of the empirical research, a theoretical framework for the methodology, a description of the model, findings, as well as discussion, conclusion, recommendations, and a list of references, make up the remaining portions of the study.

2. Literature Review and Theoretical Frame

Concept of Earnings Quality: Evaluation models used in financial theory frequently estimate and assess a company's worth based on accounting results. Accounting earnings are so frequently seen as having a high information content since they are one of the simplest measurements that represent a company's operational results over a certain time period (Shehu, 2015). However, the information content of the accounting profits varies among years, contexts of time or place, business models, and industries, which affects the quality of earnings reported (Dichev et al., 2013; Markou-Tsitsoni, 2013). Accordingly, in general, academics concur that high-quality profits provide a trustworthy representation of the actual economic success of the organisation, meaning the income supplied is instructive and helpful for making decisions (An, 2017; Dechow et al., 2010).

Earnings Quality Measures; There are multiple definitions of earnings quality (EQ) and numerous suggested methods for quantifying it in the literature. Since there isn't a method that is universally recognized for EQ measurement, empirical researchers have employed a variety of proxies that are seen to be desirable characteristics of accounting data. Additionally, Dechow et al. (2010) note that the notion of EQ is a crucial and contentious issue because, despite its significance and the substantial body of literature, the notion of "quality of earnings" has not yet been satisfactorily analysed and distinguished from the portion of earnings that are produced as a result of the basic earning process. Markou-Tsitsoni (2013) claims that none of these measures have demonstrated superiority despite the fact that there are several appropriate techniques for EQ testing. Thus, according to the majority of current research, EQ is a multifaceted term that may be interpreted in various ways

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by different people. As a result, EQ is typically seen as a multidimensional term in the accounting and finance literature. Despite its widespread usage, there is no agreement on a single definition or a consistent method for assessing it. However, despite the lack of consensus in the literature about a common definition and the best way to measure EQ, some researchers have formulated definitions and proposed measurement approaches depending on the research design, the research poses a question, of availability of the given data, and the estimation model (Barth & Taloy,2010). For instance, Dechow et al, (2010) provides a more comprehensive definition that reflect both IASB and FASB conceptual frames. They define EQ as; "higher quality earnings provide more information about the features of a firm's financial performance that are relevant to a specific decision made by a specific decision-maker". It states that "quality" depends on a particular decision environment and is a matter of subjective evaluation. The notion of EQ is approached by An (2017) from the angles of utility and decision relevance. In other words, if the figures provided are helpful to managers and investors in making decisions, the quality of profits is excellent. Additionally, Nakashima (2019) defines profits quality as earnings that correctly represent the economic realities of enterprises based on a poll of Japanese CFOs. In summary, despite the lack of a generally accepted definition of EQ in literature, this study aligns itself with the above Dechow et al (2010), because it provides a broad definition of EQ that encompass many aspects of decision context, and intune with multidimensional concept posture of this study. But for purposes of understanding, this study defines high-quality earnings as a combination of the four accounting characteristics of persistence, predictability, variation and smoothness. In other words, profits are of excellent quality if they are highly predictable, highly predictable over a long period of time, low volatility, and low smooth (a result of efficient smoothing efforts). The next chapter provides a detailed overview of these four earnings qualities.

Concept of Fair value accounting (FVA): The IASB published IFRS 13 on May 12, 2011, although it only applies where other IFRSs (such IAS39, IFRS7, IFRS9, etc.) call for or authorise fair value measures. With the introduction of new criteria and the consolidation of all of the fair value measurement and disclosure guidelines into a single standard, IFRS 13 updates the IASB's current fair value provisions.The requirement sets a unified IFRS framework for determining fair value, clarifies what fair value is, and requires disclosures of fair value metrics. Fair value is defined as "the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date" (IASB 2010; IFRS 13, 2012). IFRS 13 establishes a fair value framework applicable to all fair value measurements. According to Gautam and Arjun (2015), fair value is the amount that would be received or paid when attempting to sell an asset or transmit a liability in a structured transaction in the principal's (or most advantageous) market at the time of measurements under the current market conditions, regardless of whether the price is obvious or estimated using another valuation technique. Although historical cost accounting (HCA) is thought to be more cautious and trustworthy, several scholars have stated that recently, fair value accounting information has become more significant for the following reasons: a) Investors are focused on present value rather than cost. b) Factors pertaining to a specific company have no bearing on fair value. c) Historical pricing do not take the time worth of money into account, which renders it meaningless to estimate the present financial status of a business. d) Assets and liabilities are reported using fair value accounting, which considers both from the perspective of an economist. e) Fair value updates the values of financial instruments while taking market risk into account (Gautam & Arjun, 2015). Additionally, fair value is thought to be determined purely from the perspective of the seller, i.e., the money they would make if they sold the item. In light of this, from the perspective of market participants, the exit price is to be based on existing hypotheses on the sale or transfer price of liabilities. According to the fair value requirements, assets and liabilities must be displayed on the balance sheet at their real value (market price), and profits and losses resulting from changes in fair values must be disclosed in the income statement. The standards also allow for the inclusion of fair value in four important areas of financial statements: 1) To measure transactions when they are first entered into the financial statements; 2) To divide the initial amount in which the transaction is recorded amongst its component components; 3) To measure assets and liabilities afterwards; and 4) To ascertain the recoverable quantities of assets. Also according to the IFRS 13 framework, the price of the most favourable market should be used if the major market is not available for determining the fair value of financial instruments. The selling of financial products could not have a specified market. The reporting entity should locate possible market participants in such circumstances. On the basis of the anticipated assumptions of

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those markets, the reporting entity will create a fictitious "most likely" market. The list of balance-sheet items which may be calculated at fair value is unaffected by the new standard.

Earnings quality and fair value accounting in the banking sector

The fundamental premise behind FVA is that it can forecast future cash flows and profitability. Under a fair value-based system of accounting, a balance sheet should completely show the value of the organization's assets as well as its liabilities. This would allow the income statement to describe changes in fair value from the balance sheet.. As a result, FVA has an impact on earnings since subsequent asset measurements and impairment tests result in gains or losses that are immediately shown in the P&L statement or other comprehensive income (OCI) or Net Income (NI) statement.Earnings may fluctuate and be inaccurate if a significant portion of the assets are later valued at fair value, as this is highly reliant on market circumstances (Gaio, 2010). Since banks and other financial institutions' assets and liabilities are primarily impacted by FVA, this has implications for them. This is due to the fact that a sizable percentage of their balance sheets is made up of financial instruments. The dependability and integrity of this strategy are shown to be reduced when markets are not active (running), despite the fact that using FVA may appear sensible in well-functioning markets. In these situations, it is likely that fair value assets and liabilities will be assessed using valuation approaches that permit earnings management (EM), which might lead to reported earnings of inferior quality. In other words, the application of management judgement and purposeful bias during the valuation of fair value (mark to model or mark to matrix) opens the door to lowering the quality of financial reporting (Paoloni, et al., 2017; Meniccuci & Paoloci, 2017). The greater volatility of profitability in the banking and other financial industries generally has been attributed especially to FVA as a result. As a result, the discussion on the suitability and impacts of FVA is significantly more heated inside the banking industry. First, according to its proponents, FVA captures risks that are not described by non-Fair Value assessments of income, better representing the bank's dependency on risks, particularly during tumultuous times. As a result, FVA improves the effectiveness of market discipline and helps find insolvent banks quickly. Second, under HCA, smoothing of income and EM, which might lead to poor EQ, are likely to take place. For instance, management may alter reported profits by selling revalued assets if business performance worsens.

On the contrary, as indicated earlier, FVA is accused of increasing the volatility of a bank's earnings and reducing earnings persistence or predictability which are required attributes for earnings to be of quality. Second, when using valuation approaches based on unobservable inputs (level 3 or level 2) in financial reports, the transparency in valuing and performance evaluation may be subjective and biassed in illiquid markets. Hence, Meniccuci & Paoloci, (2017) submit that bank Mangers manage earnings, and further distinguish between real and artificial EM They further on to explain that EM obtained by abusing the flexibility offered by an accounting standard (such as IFRS) has a detrimental impact on a bank's worth since it tarnishes the integrity of financial statements and deceives stakeholders and investors. As a result, this study also makes the case that increased Fair Value measurement flexibility may be opportunistically abused by bank management, having a negative impact on the accuracy of reported earnings in Nigerian DMBs.To determine whether this management discretion discloses more with respect to bank's economic fundamental or worsen the quality of earning, empirical data are few, particularly for Nigeria. As a consequence, this study offers a chance to compare with some relevant foreign banking sector studies and further the burgeoning literature on the impact of management discretion in assessing Fair Value assets and liabilities (resulting in profits or losses) on EQ in the Nigerian bank industry.

Review of Empirical Studies

The impact of FVA on EQ in the European bank industry from 2007 to 2016 was examined by Paoloni et al. (2017) and analysed using OLS. Through the use of a number of time series properties, including persistence, predictability, variability, and revenue smoothing, the study builds a multidimensional definition of EQ and assesses it. According to the research,A higher EQ score was achieved by European banks that have substantial Fair Value exposures in their financial statements. Studies like Pompili & Tutino (2019), Sodan, (2015), and Tutino and Pompili, (2018) disagree with the conclusions presented here. Nonetheless, their study may not have

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captured the full impact of some improvement in IAS standards eg IFRS 13 was released in 2012 but effective in 2013. More so, some of the sampled banks in the Europe's third world countries is said to have newly adopted IFRS in the study period, thus the financial statement could still be in the transition period, and may be responsible for its finding conflicting with later studies with more recent data (eg Pompili & Tutino, 2019). Thus, since the environment in Europe differs from Nigeria, it is only appropriate to examine what is obtainable in the Nigerian context.

Sudan's (2015) study examines whether usage of fair value in financial reporting throughout the 2002–2011 period in Eastern European nations is connected to EQ (measured multidimensionally). Approximations of a number of EQ features, including persistence, predictability, smoothness, accruals quality, etc., are explored. On the basis of these earnings qualities, a composite Aggregate Earnings Quality (AEQ) metric known as DV is created. The income statement technique is used to gauge exposure to fair value accounting. First, the 4244 companies in the selected sample and the 716 banks are compared using two distinct measures of reported revenue: net profit (FVTPL) and other comprehensive income (FVTOCI). Second, the amount to which fair values are used in banks' income statements (FVTPL) is captured by the reported net gain (losses) of asset on their real worth through income statements. Empirically, the study shows that banks and businesses with more fair-value accounting exposure in financial statements had lower EQ levels. However, as can be observed, the study period pre-date the effective date of IFRS 13, hence, also suffer the defect of not capturing the improvement in IAS standards, particularly IFRS 13 released in the last quarter of 2012, and effective 2013, because, the study period ends at 2011. Nevertheless, his result is in line with our expectation, particularly for the banking sample. Thus, there is a need for a similar study in Nigeria with more recent data to confirm his findings, considering that the study covered only up to 2011. Additionally, the study's findings may alter if it were replicated in a poor nation like Nigeria, where the markets for most financial products are inactive.

The goal of Olaoye and Ibukun's (2020) study is to examine how fair values affect the earnings quality of a few Nigerian banks.For the study, ten banks were purposefully chosen, and the data from their yearly accounting records for the years 2012 to 2016 were used for analysis. using data from panels with correlation and regression tests for analysis and an ex-post facto research approach. The variables that are independent are fair worth with additional comprehensive income (FVTOCI), log the sum of all asset values (SIZE), and leverage (LEV), and the dependent variable is the quality of earnings (EQ), which is expressed by the predictability (PRED) of profits. The findings demonstrated a strong negative association between each independent variable (FVTOCI, SIZE, and LEV) and the dependent variable (EQ). The outcome therefore partially supports past research (such as Pompili & Tutino, 2019). However, although Olaoye and Ibukuns' (2020) study is similar to this ongoing study, but varies in 3 ways; first, it treats EQ as a unidimensional concept. Second, they only examine a subset of FVA variables (FVTOCI) and ignore fair value gains and losses through profit and loss account(FVTPL) which is very dominant in the banking industry, because it is derived through the traded financial instrument (Takacs et al, 2020). Thirdly, their study period covers only 2012 – 2016. Thus, this ongoing study intends to close the observed gaps, and complement theirs by using more recent data that may produce a different results and extend the study period to cover 2016 – 2021.

Theoretical Framework: The fundamental ideal of decision-usefulness, which supports the fair value accounting proposed by IASB, serves as the foundation for the theoretical framework of this study. In particular, agency and signalling theory will serve as the study's main driving ideas.

Agency theory: According to the hypothesis (Jensen and Meckling, 1976, quoted in Bello, 2011), the division of ownership and control of companies results in an inherent conflict of interest between the shareholders (the Principals) and the management (the Agents). Although managers are supposedly rational, they cannot be relied upon to always behave in the principal's best interest and are thus assumed to be self-serving. Due to managers' potential greater understanding of the entity's current and anticipated realised and unrealized gains/losses, there may be information asymmetry between the contracting parties. Since fair value measures heavily rely on managerial assumptions and judgement, this theory contends that there may be disparities in information involving managers (agents) and investors (principals).Given the assumptions stated above on the conflicts of

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interest between owners and managers in the competition towards utility maximization made by Jensen and Meckling (1976, cited in Bello, 2011, and Thesing & Velte, 2021) as a result, FVA causes moral hazard. As a result, managers may use fair value assessments to their advantage and so reduce the accuracy of information, a practice known as unfavourable earnings management that reduces EQ. Thus, this study expects that managers will be more inclined to engage in opportunistic transfers, given the available incentives in the regulatory requirements for banks to maintain certain capital adequacy level (Sony et al, 2010; Bello et al, 2016; Thesing & Velte, 2021).

Signaling Theory: From the other point of view, the defenders of FVA (e.g Barth and Taylor, 2010; Yao et al, 2018) claimed that, under the information asymmetry as described above, manager could pass on private information by making secure decisions, by signaling (Thesing & Velte, 2021). Due to its discretionary nature, they claimed that fair value is a superior medium than HCA for communicating managers' confidential knowledge about potential future earnings. They contend that, as a market-based assessment, FVA does not represent asset-specific private information, but rather generic market circumstances. For reporting companies to appropriately describe the economic status of individual assets or liabilities and to de-emphasize the general market conditions, accounting discretion is essential to communicate asset-specific, confidential data about their unique holdings. They further claimed that in addition to actual business actions, discretionary accounting-related decisions may typically be utilised for signalling, allowing consumers of financial statements to assess the quality of the information (Yao, 2016). Examples of these decisions include predicting and giving optional information or disclosure. Managers can therefore exercise discretion in fair value taking into account to honestly reveal personal information and so raise the information's relevance.This is advantageous earnings management that may improve the overall quality of earnings and other financial information generally (Barth, 2018).

3. Research Methodology

This study employs a correlation research design and a quantitative research methodology to explain the statistical link between FVA variables and EQ as well as the strength of that association.

Population of Study, and Sample Selection:The 14 listed deposit money banks on the Nigerian Stock Exchange (NSE) as of December 31, 2021, make up the study's population. The sample selection method for this study is the census technique, in which all the population subject is included in the study group, but one bank is dropped for incomplete data in the period of study. Therefore, 13 banks formed the adjusted population and sample of banks studied for the period 2016 to 2021. This period was chosen because, FVA as a key component of IFRS was adopted in Nigeria by 2012, but, IFRS 13 which provides additional guidance on FVA took effect in January 2013. Thus, 2013-2015 was a transitional stage, and by 2016 some stability assumed to have been achieved in the industry, hence the choice of 2016 as the beginning period of observation.

Method of Data Collection and Tools of Analysis:The majority of the data for this study came from the certified financial statements of listed DMBs in Nigeria for a period of six years between 2016 and 2021, which were collected from secondary sources (the NSE website).Multiple regression utilising SPSS and longitudinal panel data will be employed to evaluate the study's model. Following earlier empirical research model (Sodan, 2015; Paoloni et al., 2017; Takacs et al., 2020), longitudinal panel data is utilised to account for individual variability of the sampled banks in establishing the EQ of the listed DMB in Nigeria.

Variables Measurement and Model Specification

Variables Measurement: The approach taken by this study is the same as that of earlier ones, which views emotional intelligence (EQ) as a multidimensional term that uses four accounting-based profitability aspects that are distinct from market awareness. The accounting-based time-series aspects of earnings provide a way to convey both the distribution of profits over a period of time as well as the statistical properties of the method used to acquire earnings (Thesing & Velte, 2021). In order to assess EQ, this study will specifically create the aggregate earnings quality (AEQ) measure using the four earnings qualities persistence, predictability, variability, along with smoothness in combination. In addition, a brief description of the attributes and how they

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are jointly apply to form AEQ measure is given below following prior researchers like ; Sodan,(2015), Paoloni et al, (2017), and Takacs et al, (2020) among others.

 i) *Persistence:*Persistence is seen as a desired earning characteristic and frequently shows the possibility for maintaining current acknowledged gains in future earnings (Francis et al., 2004). The future sustainability of profits is shown by persistence. Thus, in accordance with Takacs et al. (2020) and others, the slope coefficient obtained from autoregressive models of earnings is determined as follows in eq.3.1 below;

$$X_{i,t} = \beta_0 + \beta_1 X_{i,t-1} + \varepsilon_{i,t} \quad (3.1)$$

where Xi,t and Xi,t1 represent the net income of the business or bank i in years t and t1, respectively, scaled by the number of outstanding shares (EPS), and coefficient 1 represents the persistence of the firm's net income. Xi,t also serves as the error correction. High EQ and highly persistent earnings are indicated by slope coefficient 1 values that are near to 1, whereas low EQ and highly transitory earnings are indicated by coefficient 1 values that are close to 0.. Accordingly, the persistence measure (PERS) is derived from Eq. (3.1) as ; PERS = β_1 from eq 3.1 above

ii) *Predictability:* The capacity of profits to be anticipated is measured by the predictability (PRED), or earnings predictability. A bigger range for earnings shocks indicates less predictability, according to prior research by Takacs et al. (2020), Francis et al. (2004), and Lipe (1990). Earnings predictability is controlled by the adjustment of earnings shocks. Prior research have employed the squared root of the variance error correction from equation (3.1), where higher variance signals poorer predictability and low EQ. PRED is therefore computed as; PRED = $(\sigma^2)^{1/2}(\varepsilon_{i,t}) = \sigma(\varepsilon_{i,t})$ from eq 3.1 above

  iii) *Variability:* The variability (VAR) of profits, which is determined as the standard deviation of earnings in the analysed period, represents the volatility of the firm's net income. Better profit quality is indicated by lower volatility. According to former study (Francis et al., 2004; Takacs et al., 2020), higher values indicate decreased earnings fluctuation, which is viewed as better EQ, while lower values indicate greater earnings variability, which is perceived as lower EQ. Additionally, according to studies, less variable earnings are more steady and predictable. VAL is then calculated as follows: VAL = (X j,t) from eq 3.1 above.

 Smoothing: Following Gaio, (2010), Paoloni et al, (2017), and Takacs et al, 2020), this study adopted the high value of SMOOTH implies less artificial smoothing and represent high EQ in measuring AEQ. Thus, smooth value is measure as the ratio of standard deviations(σ) of earnings ($X_{j,t}$) to standard deviations of operating cash flows (CFO) as follows;

$$\text{SMOOTH} = \frac{\sigma(X_{j,t})}{\sigma(CFO_{it})} \quad \text{from eq 3.1 above}$$

However, some researchers like; Francis et al. (2004), Cascino et al. (2010), Gaio (2010), Sodan, (2015), used with non-financial sector, high value of smooth as low EQ. Their argument concern less artificial smooth reduce manager's private information snalling(Paoloni et al 2017). Table 3.1 in the appendix II summarizes all the variable measurement discussed above.

v) Construct of AEQ measure as EQ Proxy: According to the idea proposed by Gaio, Sudan, and Paoloni et al. (2015) and used to quantify EQ, EQ is a combination of four characteristics: persistence, predictability, volatility, and earnings smoothing. The definitions and measurement is already discussed above, and presented in Table 3.1 below.As a consequence, after computing the raw values of these elements for each bank as mentioned above, the total earnings quality (AEQ) is established. The 13 banks in the sample are then scored for each attribute, with the bank with the highest score (in this case, 13) being awarded for exhibiting the best value compared to the perspective of earnings quality (as defined above), and the bank with the lowest score (in this case, 1) being awarded for exhibiting the worst value. Then, a summation of the four individual scores is done and the resulting figure is then divided by fifty-two(52= 4*13) (total scores for the 4 attributes). Thus, the AEQ (EQ) indicator for each bank was obtained and ranges from 0 to 1. Consider the scenario where Bank-i, among all the banks in the sample, has the best persistence, fifth-best predictability, as well as tenth-best volatility

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measurement, but also the least effective smoothing. It will then be given the following scores: 13 (PERS), 9 (PRED), 4, and 1 (SMOOTH). The total of these four scores is (13+9+4+1) = 27, which is then divided by the total score available of 52, to have 27/52 = 0.519. Thus the AEQ of the bank i is = 0.519, for the period (Paoloni et al., 2017; Takacs & Szucs, 2019; Takacs et al, 2020).

vi) FVA variables Measurement(IVs)

Using the income statement technique, exposure to FVA is calculated. The income statement approach is adopted following prior researchers like; Sodan, (2015), Takacs et al, (2020).This study assumes that bank report is a significant number of financial asset along with liabilities that are fairly valued in line with IAS 39, IFRS 7 & IFRS 9, every one of which have been amended to conform to IFRS 13 (Fair Value Recognition and Measurement). recognising and measuring fair value. For this reason, reported net gains (losses) through net income (NI), i.e., the P & L account (FVTPL), and other comprehensive income (OCI) accounts (FVTOCI), are used to determine the amount of fair values recognised in Comprehensive income (CI) statements. Accordingly, using model 3.2, the ratio of each bank's absolute FVTPL to absolute Net Income (NI) is used to calculate the proportionate level of exposure through NI accounts (FVTPL):

$$FVTPL_{it} = \frac{absv\ FVTPL_{it}}{absv\ NI_{it}}$$

The ratio of the absolute value of FVTOCI to the absolute value of Total Comprehensive Income (TCI) is used to assess the relative level of exposure to FVA through OCI (FVTOCI) for banks in the sample where ; (TCI = NI + OCI).

$$FVTOCI_{it} = \frac{absv\ OCI_{it}}{absv\ (NI_{it} + OCI_{it})} = \frac{absv\ OCI_{it}}{absv\ TCI_{it}}$$

Following prior researchers like; Sodan, (2015), Paoloni et al, (2017), and Takacs et al, (2020).

 Regression models must contain numerous business control factors in order to decrease noise when evaluating the impact of FV accounting measurements on EQ (Francis et al., 2004; Gaio, 2010). Bank size and financial leverage are to be included in the model as control variables based on prior EQ analysis (Francis et al., 2004; Gaio, 2010; Paoloni et al, 2017; Takacs and Suzcs, 2019; Takacs et al., 2020)It is common practise to utilise firm size (SIZE) were controled variable for empirical investigations since it is related to accruals and cash flow, both of which are closely related with emotional intelligence (EQ). The logarithm of the total assets is used to compute the variable size (SZE) (Francis et al., 2004; Cascino et al., 2010; Gaio, 2010). It is anticipated that the variable SIZE's coefficient would be positive. Another control variable is leverage (LEV), which represents the trade-off between tax advantages and bankruptcy expenses..Leverage levels in particular show potential risks to the company's (bank's) reporting and accrual accounting standards. The variable leverage (LEV) is defined as the ratio of total debt to total assets, according to Francis et al. (2004), Cascino et al. (2010), Gaio (2010), Pompili & Tutino (2019), and other studies. Additionally, a positive coefficient for the LEV variable is expected. Table 3.1 below displays each variable's definition and measurement.

 Model Specification:

To examine how FVA affects EQ, cross-sectional and time-series data must be gathered and carefully examined to create panel data, which will then be examined using the OLS-regression model in SPSS. To support or deny the hypothesis 1 & 2 stated above, this study utilises both descriptive of analysis along with regression to assess the impact of FVTPL and FVTOCI on aggregate EQ (AEQ) for sampled banks using the models 3.2 below;

$$AEQ = \beta_0 + \beta_1 (FVTPL)_{it} + \beta_2 (FVTOCI)_{it} + \beta_3 SZE_{it} + \beta_4 LEV_{it} + \varepsilon_{it} \qquad eq\ 3.2$$

4 Result and Discussion

Descriptive Statistics; Table 4.1 below demostrates the mean of AEQ is 0.537, indicating that the average

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reported EQ proxy by AEQ is 53.7 % among Nigerian listed deposit money banks. The standard deviation is 0.1523, which is lower than the mean, showing that the dispersion of AEQ among the listed DMBs in Nigeria is low. The minimum value of AEQ is 0.2885 and the maximum of 0. 8077, which shows a wide range of figures among listed DMBs. Also, Table 4.1 demostrates that the mean of FVTPL is 0.3277, with a standard deviation of 0.3065. This indicates that on average, the listed DMB's Net Income (NI) is relatively exposed to Fair Value Gain/Loss(FVGLs) to about 32.8%. Also, the minimum and maximum values for FVTPL are 0.0385 and 0.9532 respectively, indicating a very wide range of NI exposure to fair value accounting among listed DMBs. In addition, Table 4.1 shows the relative extent of OCI account exposure to fair value gains/losses (FVTOCI) is on average 13.1% (0.1305) of Comprehensive Income(CI) with a standard deviation of 0.0968, which is lower than the mean value, also indicating low dispersion of this variable (FVTOCI) among listed DMB.

Table 4.1 Descriptive Statistics of variables

Variables	Mean	Median	S/Devi	Min	Max	Skewness	S/Error	Kurtosis	S/Error	N
AEQ	0.537	0.4808	0.1523	0.2885	0.8077	0.334	0.616	-0.625	1.191	78
FVTPL	0.3277	0.2202	0.3065	0.0385	0.9532	0.871	0.616	-0.691	1.191	78
FVOTI	0.1305	0.1452	0.0968	0.0115	0.3195	0.42	0.616	-0.718	1.191	78
BSZ	5.9231	6.0035	0.56	5.0146	6.6839	-0.215	0.616	-1.264	1.191	78
F/Lev	0.7247	0.86	0.4191	0.123	1.237	-0.912	0.616	-0.277	1.191	78

SPSS 16 output

From the same table, bank's size was measured by LOG of total assets is on average 5.9(5.9247), which implies that on average the DMBs in Nigeria have strong assets based, considering the log form of the mean value gives above 1 trillion Naira(i.e. 10^5.9247). Also, the DMBs in Nigeria are highly leveraged as the mean value is about 0.7247, which implies the liabilities is up to 72.5 % of total asset. This is however normal for the banking sector since they collect the deposit money that forms a significant part of their liabilities. In addition, Table 4.2 in the appendix displays Kolmogorov-Smirnov & Shapiro-Wilk Normality Test for all the variables used in the models 3.2. The decision rule for normality with these two tests is that its p-value should not be less than 0.05 (5%) level of significance (Petra-Petrovics, 2012; Sabine et al, 2004). Thus, as can be observed, all variables are normally distributed except FVGL3, which was transformed into LOG form(as LNFVGL3) to achieve normality.

Regression result:

Correlation matrix: The correlation matrix in model 3.2 shows the relationships between the pairs of variables. The independent variables have low correlations, as expected, while the variable that is dependent and independent variables have substantial correlations. A correlation value of 0.8 was found between two independent variables is regarded as strong and indicates that multicollinearity is probably present, according to Gujarati (2004), who was cited by Adeyemi et al. in 2020 and Uyanna et al. in 2019.

Table 4.3 Pearson Correlation

Pearson Corr.	AEQ	FVTPL	FVTOCI	BSZ	F?LEV
AEQ	1.000				

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FVTPL	.502	1.000			
FVTOCI	-.313	.437	1.000		
BSZ	.412	-.025	.130	1.000	
F/LEV	.361	.684	.221	.532	1.000

Table 4.3 above reveals correlation coefficient among independent variables is less than 0.8 indicating no presence of multicollinearity. This assertion is verified by conducting a multicollinearity test using variance inflation factor (VIF) and tolerance value test. Prior studies have held that a VIF value of more than 10 and/or tolerance value of more than 1.00 indicate the presences of multicollinearity in the data set (Gujarati 2004 cited in Uyanna et al, 2019; Adeyemi et al, 2021). The result of VIF & Tolerance tests is indicated in the collinearity statistics column in the regression table 4.6 below, which shows that no variable's VIF is high than 10, or Tolerance value high than 1. Also, table 4.4 in the Appendix, shows the D/Watson test is 2.01, which indicates the absence of autocorrelation in the data set for this model, and therefore fit for regression analysis. Additionally, Table 4.4's R-squared, or multiple coefficients of determination, shows that it is 0.876. This shows that 12.4% of the overall variation in the AEQ of listed DMBs in Nigeria is driven by factors not included in model 3.2, and that the remaining 87.6% is explained by the explanatory variables included in model 3.2.The study's model 3.2 is fit, as well as all explanatory variables were properly selected, combined, also was used, according to table 4.5's F-statistic of 6.608 (see tables 4.4 and 4.5 in Appendix 1).

Table 4.6   Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	1.038	.403		2.579	.033		
FVTPL	.616	.165	1.320	3.733	.006	.232	4.303
FVTOCI	-.017	.324	-.011	-.054	.156	.686	1.458
B/SIZE	-.111	.076	-.407	-1.460	.182	.373	2.681
F/LEV	.538	.138	1.482	3.898	.005	.201	4.975

a. Dependent Variable: AEQ

According to the regression results in table 4.6 above, actual gains/losses via P & L (FVTPL) are demonstrated for having a positive and significant influence in EQ of DMBs, having a coefficient of 0.616 as well as a t-value of 3.733 that is significant at 1%. This shows that an increase in FVTPL of around 1% causes an increase in the reported profits quality of DMBs of about 0.62%. The positive correlation between FVTPL and AEQ (EQ proxy) indicates that the statement of operations will become more transparent as more traded financial assets and bank derivatives are valued at fair value because it will show the present value of future earnings or cash flow, that implies that earnings are extremely informative (about predictive power, persistence, volatility, etc.) over investors' decision-making.

Thus, for Hypothesis 1; *FVA gain/losses through P&L (FVTPL) has no significant effect on EQ of Nigerian listed DMBs.* This finding provides statistical evidence to reject hypothesis 1; and to support the alternative, that FVTPL does have a positive and significant impact on the EQ of Nigerian DMBs. The result is in line with

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other research on fair value accounting studies, including those by Paoloni et al. (2017), Takacs & Szucs (2019), and Takacs et al. (2020), who present documentary evidence for the beneficial impact of FVTPL on banks' equity ratios in developing European countries.Otherwise, it contradicts the findings of researchers like; Sudan (2015); Pompili & Tutino, (2019); Pirveli, (2020) among others, who provide empirical evidence with USA and Europe samples, that fair value of financial instrument increase the level of earnings management and reduce reported EQ.

For hypothesis 2; *FVA gains/ losses through OCI (FVTOCI) have negligible significance on EQ of quoted Nigerian DMBs.*The coefficient of -0.017 and -0.054 as true valu which is insignificant (p-value-0.156), the results from Table 4.5 show an insignificant and negative association between FV gains/losses through OCI account (FVTOCI) and reported EQ in Nigerian DMBs. This finding suggests that FV gains or losses through OCI (FVTOCI) is not significantly associated with AEQ of Nigerian DMBs.The results of this study give plausible and statistical support for hypothesis 2, which states that FVTOCI has no appreciable impact on the EQ of quoted Nigerian DMBs. The results concur with other literature submissions, including Sudan (2015), Pompili & Tutino, (2019), and Tutino & Pompili, (2019), all of which included samples from the USA and Europe. These findings are also similar to the recent empirical study on Nigerian DMBs by Olaoye and Ibukun-Falayi(2020), who reported a negative but significant impact of the FVTOCI variable on the EQ of DMBs in Nigeria.

As for control variables, it is observed from the above table 4.6 that bank size(BSZ) is negative but insignificantly associated with the EQ of DMBs. This means that in this model, size of the bank is not significantly associated with the EQ of DMBs. As for the F/Leverage variable, it is positively as well as significantly associated with the EQ report of DMBs. This is in line with prior study submission that good quality earnings of an organization, provide an opportunity to attract more capital from investors. Thus, the result in table 1 above, shows a good average AEQ (53.7%) of Nigerian DMBs, that attracted funds up to approximately 72.5% (on average) of total assets from various investors in and outside the country.

Conclusion and Recommendation: Thus, it uses the sample which comprises of 78 bank-year observations from 13 listed Nigerian banks' financial statements downloaded from the NSE website for the period 2016-2021, the results of the investigation support the following conclusions: a) that the extent of NI exposure to FVA as measure by percentage of FV gains/losses through net income (FVTPL) is positively and significantly related to the EQ of Nigerian DMBs. That is, the more the proportion of gains/losses on traded & non-cash hedge derivative financial assets were recognized in the net income statements, the higher the quality of reported earnings. Meaning the earnings is informative about its persistence, predictability, smooth and volatile nature, therefore, relevant to statements User's decision-making process. This relationship may have been mostly driven by the proportion of gains/losses on traded financial assets that have direct or indirect observable quoted prices and constitute an average of about 32.8%(see table 4.1) of the total net income of sampled banks in Nigeria. b) that the extent of exposure of OCI proxy by percentage of FV gains/losses through OCI (FVTOCI) is not associated with the EQ of Nigerian DMBs. From prior studies, this account is also receives the FV unrealised gains/losses on unquoted financial assets (e.g retirement benefit instrument) before their final destination to the net income statement when realized or discharged. Thus, the percentage of FV gains/losses in this account is not quite associated with EQ of DMBs, but serve to provide signal of the expected cash flow/earnings to the investing public. Thus, it is concluded base on the result that the application FVA in an emerging market like has some potential benefits as posited by IASB conceptual framework, (2010), but good institutional framework(e.g. good CG mechanism) should be put in place, to check possible abuse of discretion allowed FVA standards.

However, the statistical results from these two FVA proxies there is the need for further investigation by reclassifying the gains/losses base on input used in estimating the financial asset/liabilities and this may be take up in the next paper. It is recommended that the regulatory agencies, such as; the Financial Reporting Council of Nigeria, Central Bank of Nigeria, Security and Exchange Commission, etc, should provide training and retraining on FV measurements via workshops and seminars for staff and management of DMBs, to reduce

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complexity and un-intentional measurement error, and enhance compliance with IFRS 9 & 13 standards, to reduce earnings manipulation by bank managers as anticipated in the IASB conceptual framework, (2010). Also, training can go a long way to improve any negative perception of the FVA model by managers of these DMBs.

Limitations: The market-based attributes were not included in this study because management does not have much control over them because they are constantly changing, despite efforts to mitigate the effects of measurement errors and omitted variables by using the AEQ measure to proxy EQ. Instead, only the accounting-based attributes were chosen. However, based on prior studies(Paoloni et al, 2017; Takacs et al,2020), these omitted attributes limitation would not significantly affect the overall interpretation of the result, as far earnings informativeness to investor's decision-making is concern.

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Table 4.4   Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.876[a]	.768	.652	.0899255	2.006

.   Predictors: (Constant), F/LEV, FVTOCI, B/SIZE, FVTPL b. Dependent Variable: AEQ,

APPENDIX 1

Table 4.5   ANOVA[b]

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	.214	4	.053	6.608	.012[a]

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Residual	.065	8	.008		
Total	.278	12			

a. Predictors: (Constant), F/LEV, FVTOCI, B/SIZE, FVTPL b. Dependent Variable: AEQ

Table 4.2 Normality Test

	Kolmogorov-Smirnov[a] Test			Shapiro-Wilk Test		
	Statistic	df	Sig.	Statistic	df	Sig.
AEQ	.182	78	.200[*]	.963	78	.794
FVTPL	.270	78	.210[*]	.850	78	.088
FVTOCI	.167	78	.200[*]	.932	78	.364
B/SIZE	.134	78	.200[*]	.940	78	.451
F/LEV	.277	78	.071	.812	78	.109

a)Significance Correction *. This is a lower bound of the true significance

Appendix II

Table 3.1 Variables Measurement(summary)

Earnings Attributes to form AEQ	Descriptions	Measurements	Sources
Persistence	Sustainability of earnings	Slope coefficient estimated from a first-order autoregressive model (eq. 1) for annual earnings. PERS $= \beta_1$	Francis et al., (2004) Paoloni et al,(2017) and Takacs et al, (2020).
Predictability ,	The ability of earnings to be predicted	The square root of the error variance of eq. (1) $$PRED = (\sigma^2 (\varepsilon_{i,t}))^{½}$$	Francis et al., (2004) Paoloni et al,(2017) and Takacs et al, (2020).
Variability	Real volatility of earnings	The standard deviation of earnings $$VAR = \sigma (X_{j,t})$$	Francis et al., (2004) Paoloni et al,(2017) and Takacs et al, (2020).

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Smoothing	Intentional reduction in earnings variability	The standard deviation of earnings divide by the standard deviation of cash flows SMOOTH = $\dfrac{\sigma(X_{i,t})}{\sigma(CFO)}$	Francis et al., (2004) Paoloni et al,(2017) and Takacs et al, (2020).
AEQ	EQ proxy	**AEQ =** **$\dfrac{Score(PERS)+Score(PRED)+Score(VAR)+Score(SMOOTH)}{52}$**	Francis et al., (2004) Paoloni et al,(2017) and Takacs et al, (2020).
IVs (FVA) and Control variables			
(FVTPL) ,	Exposure to Fair Value gains (losses) through Net Income	The absolute value of Fair Value gains (losses) through net income divided by Net income (NI) $(FVTPL_{it}) = absv\ \dfrac{FVTPL_{it}}{absvNI_{it}}$	Paoloni et al , (2017); Pompili and Tutino,(2019); Sudan, (2015).
(FVTOCI)	Exposure to Fair Value gains (losses) through OCI	The absolute value of FVTOCI divided by the absolute value of comprehensive income (CI) ; $(FVTOCI_{it}) = absv\ \dfrac{OCI_{it}}{absv\ (NI_{it} + OCI_{it})} = absv\ \dfrac{OCI_{it}}{absv\ TCI_{it}}$	Paoloni et al , (2017); Pompili and Tutino,(2019), Sodan, (2015)
SIZE	Bank size	The logarithm of total assets	Most Prior studies
LEV	Financial Leverage	Total liabilities divided by total assets	Most Prior studies