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FIRM-SPECIFIC FACTORS AND CORPORATE SOUNDNESS OF NIGERIAN INSURANCE COMPANIES: DO RELEVANCE AND FAITHFUL REPRESENTATION MATTER?

Abdulai Agbaje Salami[1] Zainab Adebayo[2]
[11]Department of Accounting, Al-Hikmah University Ilorin, Nigeria
[2]Finance and Account Department, Experience Vision Creations, Ilorin, Kwara State
Email: abdagbaje1@gmail.com[1], harsarbee@gmail.com [2]

All correspondence to: abdagbaje1@gmail.com

ABSTRACT

The case of corporate soundness of Nigerian insurance companies being threatened as reflected in some momentum of corporate failures, seemingly technical insolvency and constraints in settling policyholders' claims should be a source of worry. This study, therefore, examined the impact of firm-specific factors on the corporate soundness of listed insurance firms in Nigeria. This was done in the context of switch to International Financial Reporting Standards (IFRS) believed to be deep-rooted in "relevance" and "faithful representation" qualitative characteristics. Using insurer-level data of 22 listed insurance firms manually extracted over the period 2007-2023, data analysis was performed using Driscoll and Kraay's Estimator with capacity to correct heteroscedastic, serially correlated and cross-sectional dependent residuals. The findings showed that 6 out of 10 firm-specific factors examined are favourable to the improved financial standing in terms of soundness as measured by Z-score. These factors are share of premium ceded to reinsurance, premium retention, premium to surplus ratio, capital adequacy, loss ratio and level of profitability. Claims growth and insurer's size are unfavourable while concluding evidence cannot be made regarding insurance premium growth and insurer's age. However, during IFRS, insurer's soundness was subject to improvement via reduced claims growth and loss ratio and somehow upward growth in insurance premium only. This suggests that favourable IFRS reporting impact reflected in few of the factors, indicating that there is low progressive institutional change in corporate reporting practices of insurance firms in Nigeria. This situation requires that relevant regulators increase their level of oversight in ensuring that there is a true and favourable reflection of IFRS reporting in the financial soundness of Nigeria insurance firms.

Key words: *Firm-specific factors, Corporate soundness, Relevance and faithful representation, Insurance companies, IFRS reporting.*

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1. INTRODUCTION

Insurance sector is the second largest industry in the country's financial services industry following banking sector. Apart from huge investment in the sector, its activities substantially benefit individual and corporate entities owing to its acceptance of risk of other ventures

though in return for premium. The acceptance of risk of other going concern ventures across other sectors including manufacturing, oil and gas, health, transport, infrastructure, banking and other financial services sector's arms (Banerjee & Majumdar, 2018) makes settlement of policyholders' claims substantial charge against the sector's financial returns (Odira, 2018). This shows that the underwriting of risks by insurance companies is strategic as its mismanagement can result in unimaginable claims payment with eventual effect on their going concern. If an insurance firm continually reports the excess of actual loss over predicted loss subsequent to risks underwriting, though sometimes probable given some unforeseen contingencies, the stability of such a firm appears questionable and its risk transfer role (Bansal & Singh, 2021) becomes not executable. This reinforces the fact that insurance companies should be financially sustainable as their activities centre on how entities in other sectors cease not to be a going concern. The corporate soundness of insurance companies has ultimate influence on the viability and the growth of an economy as contributions of no sector will be halted in any form. Thus, this study examines how insurance-specific factors explain the corporate stability of listed insurance firms in Nigeria.

The insurance companies are among entities categorised as "public interest entities", whether listed or not, upon Nigeria switch to International Financial Reporting Standards (IFRS) reporting in 2012 (Muhammad, 2017). These firms were so fortunate that as at 2012 when Nigeria mandated some categories of firms to adopt IFRS, there was a dedicated IFRS for insurance activities tagged IFRS 4: *Insurance Contracts*. This is unlike banks and related entities, petroleum firms and telecommunication companies with no industry-specific IFRS rules but had to fall back to the previous national accounting rules (statement of accounting standards [SASs]) as specific to their respective industries despite reporting in IFRS. Thus, accounting information of insurance firms in the country has an edge of being laden with IFRS financial information qualitative characteristics of "relevance" and "faithful representation". "Relevance" and "faithful representation" are identities of financial reporting quality indicating that accounting information provided by the reporting entities has capacity to make significant difference in their decisions and that it represents what it is considered to represent as presented. Given this argument, this study further investigates whether there is improvement in the explanatory power of insurance-specific determinants of corporate soundness of Nigerian insurance companies upon switch to IFRS reporting.

The empirical studies to unveil the determinants of Nigerian insurance firms' corporate soundness should be a priority if the recent happenings in the industry are taken into consideration. The downfall of big players in the industry has become a source of concern

(Okiche et al., 2022). The household names in the industry like Niger Insurance Plc, UNIC Insurance, NICON Insurance and Industrial and General Insurance (IGI) Plc are either nowhere to be found and/or struggling to survive (Proshare, 2022). This scenario has been preceded by the backlog of unsettled insurance claims overtime (Proshare, 2018). Also featuring prominently is the scenario of questionable capital structure of negative total equity identifiable with some insurers which have placed them in precipice of technical insolvency and made honouring policyholders' claims a mirage in the recent time (Tolu-Kusimo, 2024). All these and many others as related to sustainability of insurance business in Nigeria should not be left uninvestigated. Worse still, there was an alert from the industry regulator: National Insurance Commission (NAICOM) that more insurance companies could be liquidated in the name of improving the financial health of the industry (PensionNigeria, 2022; ThisDay, 2022). While the insurance industry has been argued to be key to the growth of an economy (Oloyede et al., 2023), the scenario in Nigeria is in the reverse order considering the low contribution of the industry (less than 1%) to her gross domestic product (GDP) if compared with South Africa, Malawi, Kenya and Ghana (Okiche et al., 2022). Evidently, 84.8% of African insurance market is dominated by South Africa, Morocco, Egypt and Kenya in terms of insurance premiums (Ecofinagency, 2024).

Although there has been a paradigm shift from financial performance to corporate soundness/stability in the literature related to determining factors of insurance firms' financial standing (Altuntas & Raunch, 2017; Kasman et al., 2020; Kebede et al., 2024; Kramarić et al., 2019; Lee, 2023; Mustafa, 2022; Ritho, 2024), research situation in Nigeria remains unchanged. This can be deduced from related studies with similar focus on Nigeria (Ajao & Ogieriakhi, 2018; Iroh & Orobator, 2021; Nafiu & Ayuba, 2023; Olanrewaju et al., 2018; Ugwu et al., 2021; Usman et al., 2024). While the traditional financial performance measures focus on the profitability, the probability of distance to default or collapse is the measure of corporate soundness using Z-score (Salami, 2018). Based on this argument, this study advances literature in relation to determining factors of Nigerian insurance firms' financial strength given its choice of measure of corporate financial strength incorporating both profitability and stability. It is also worthy of note that only few are identifiable with more firm-specific factors that are truly insurance-oriented among studies with stability as outcome variable (Kramarić et al., 2019; Lee, 2023; Mustafa, 2022). Although there are a number of studies with the focus on how IFRS adoption affects the financial standing of insurance companies in the literature (Abdallah et al., 2018; Adeyemo et al., 2020; Kassamany et al., 2023), the moderating and/or interaction effect approach adopted in this study is identifiable

more with banking studies in the financial services industry literature (Alruwaili & Ahmed, 2024; Ilugbo et al., 2024; Salami, 2024). This study is also unique for having the potential of complementing the efforts of Nigerian insurance industry regulator (NAICOM) towards improving the corporate soundness of the country's insurance companies considering its timing.

1.1 Objectives

The aim of this study is to unravel how firm-specific factors influence the corporate soundness of Nigerian insurance firms while reporting in IFRS believed to be typical of "relevance" and "faithful representation" qualitative financial information characteristics. The specific objectives are to:

1. examine the insurance-specific determinants of corporate soundness of listed insurance firms in Nigeria.
2. establish the level of improvement in the influence of firm-specific factors on the corporate soundness of listed Nigerian insurance companies upon switch to IFRS reporting.

1.2 Hypotheses

The following hypotheses were tested and subsequently rejected or retained:

H_{01}: Firm-specific factors do not significantly explain the corporate soundness of listed insurance companies in Nigeria.

H_{02}: There is no significant improvement in the explanatory power of firm-specific factors on the corporate soundness of listed insurance firms in Nigeria upon adoption of IFRS.

2. LITERATURE REVIEW

2.1 Conceptual Review

Some of the factors and/or resources at firm-level internal and external to the corporate soundness of insurance companies as embedded in their activities have been unveiled by previous studies (Kramarić et al., 2019; Mustafa, 2022). These factors include share of premium ceded to reinsurance, growth in gross written premium, claims' growth, ratio of premium to surplus and size of insurers (Kramarić et al., 2019). Others include the insurer's capital adequacy, loss ratio and age of an insurer (Lee, 2023; Moreno et al., 2022). Previous studies have also tested the explanatory potential of receivables and invested assets ratios (in relation to insurer's total assets) and retention ratio (Mustafa, 2022). The essence of

reinsurance as argued in the literature is to increase the ability of an insurer to sustain its underwriting capacity, thus serving as a risk management mechanism because of the insurer potential to retain manageable risks and transfer unmanageable ones (Altuntas & Rauch, 2017). This emphasises that level of an insurer's reinsurance ratio is expected to be positively related to its financial strength. The quality of the process involved in underwriting by an insurer accentuates the importance of loss ratio in insurance firms' financial strength analysis. This can be determined by the level of variability of the underwriting results and/or ratio of net claims to net premium (Altuntas & Rauch, 2017). Since the insurance is highly risk-oriented, the ability of an insurer to deal with market uncertainties and manage economies of scale inform the relevance of size in the financial strength analysis of an insurance company (Zainudin et al., 2018). Size of an insurer is evident by the amount of its total assets like firms in other sectors (Ritho, 2024; Siopi & Poufinas, 2023) but by amount of net premium earned in specific (Zainudin et al., 2018). Though gross written premium growth emphasises the level market penetration of an insurer, it may be a source of high bankruptcy or insolvency risk (Chen & Wong, 2004). This is subject to the probable increased underwriting risks and technical reserves with attendant negative consequences on sustained profitability (Kramarić et al., 2019). However, since the main source of insurance companies' earnings is gross written premium, its positive growth should be consequent upon their strong financial standing both profitability and solvency-wise (Khadka, 2023).

Furthermore, for an insurance company to be a going concern, it must have a capacity to underwrite new insurance policies (Kramarić et al., 2019). Underwriting new insurance policies involves having favourable relationship between premium and equity. To have adequate premium volume, an insurer should have sufficient policyholders' surplus or equity (Shim, 2017) which mainly reflects in the low premium-equity nexus to be a catalyst to its solvency or stability (Kramarić et al., 2019). Premium to surplus ratio is a measure of insurance leverage (Lee, 2023). While lower premium-surplus ratio reinforces the insurance companies' stability (Lee, 2023), higher ratio of equity or policyholders' surplus in relation to insurers' total assets is an ingredient of insurance companies' financial stability and/or efficiency (Caporale et al., 2017; Msomi, 2023; Zainuldin et al., 2018). Thus, capitalisation, in a positive form, as represented by excess of insurer's assets over liabilities reinforces stability of insurance companies (Altuntas & Rauch, 2017; Moreno et al., 2022). Growth in insurance claims payment also has a role to play in the financial strength analysis of insurance companies owing to probable impact on their capital base (Caporale et al., 2017). As further argued, there is higher probability of liquidity risk which triggers insolvency if successive

growth in insurance claims is not accompanied by higher capital base to absorb ensuing shocks (Caporale et al., 2017).

The premium retention takes into consideration the amount of claims the insurer can tolerate in a particular period with reference to its operating and financial capabilities (Lee & Lee, 2011). This suggests that the lower the retention ratio, the lower the investment income and underwriting profit with attendant effect on the ineffective use of the insurer's equity and surplus. Conversely, if the retention ratio exceeds the underwriting limits, it is probable that the insurance companies' business activities are at higher risk of collapse. For this rationale, retention ratio should be inversely related to corporate soundness of insurance companies. Also, it is argued in the literature that better financial standing of a firm is a function of its age (Bansal & Singh, 2021). The older age of a company emphasises its sustainability and is causative to the increased confidence in its financial and operating conditions (Lee, 2023). The failure of insurance companies to pay claims may be triggered by their poor management of account receivables (Puławska, 2021). This links the stability of insurance companies to sound management of receivables since it forms a significant part of working capital management of a firm. Thus, an insurer has to strive towards the reduction in account receivables to appear financially sound to the insured and investors (Puławska, 2021). It is also important to state that insurance companies like banks have quite a number of earnings assets called invested assets (Mustafa, 2022). The proportion of invested assets in total assets determines the level of investment income to be projected (Mustafa, 2022) because of its relationship with efficiency of account receivables (Cummins et al., 2017).

2.2 Theoretical Review

Previous studies rely on the theoretical propositions of efficient-structure hypothesis (ESH) and structure-conduct-performance hypothesis (SCPH) especially in the banking literature (Sanni et al., 2020) because of their all-inclusive nature. While the ESH reinforces internal factors, SCPH emphasises the external factors providing linkage to the firm performance (Ferrouhi, 2017). As provided by ESH, internal factors reinforcing the performance of a firm can be categorised into two: "X-efficiency hypothesis" and "scale efficiency hypothesis" (Berger, 1995). For X-efficiency hypothesis, what causes lower cost and eventually reinforce financial strength of a firm are higher efficient management and/or production techniques (Berger, 1995; Ofori-Boateng et al., 2022) while minimum cost unit that brings about increased level of profitability is encapsulated in the efficiency of scales of a firm according to the scale efficiency hypothesis (Choi & Weiss, 2005; Sanni et al., 2020). The emphasis of

SCPH is that the financial standing of a firm is dependent on its market behaviour and structure (Ferrouhi, 2017). This supports the fact that the activities of a firm's competitors become insignificant if the firm is highly concentrated (Ofori-Boateng et al., 2022). Resource-Based Theory (RBT) has also been considered applicable in the relevant literature (Zainudin et al., 2018). Accordingly, six different resources of human, physical, financial, organisational, reputational and technological are internal to the success of a firm (Grant, 1991; Zainudin et al., 2018). As further argued, a firm's resources will inform what its economic suitability, profitability, capacity and level of competitiveness are (Grant, 1991) unless there are infractions.

Sometimes the internal mechanisms of corporate entities may not be favourable to their corporate stability. This, which may occur owing to some infractions, may warrant some institutional and regulatory intervention. The intervention which is often aimed at returning normalcy into a system can be explained using "institutional change theory" (ICT) as previously applied by Salami and Uthman (2024). Institutions, in this case, consist of rules giving structures to social interactions in the society (Knight, 1992) or enforcement mechanisms incorporating rules, policies, and regulations shaping the behavioural patterns of corporate entities and individuals in the society (Burki & Perry, 1998). Thus, when there is a shift in the way things are done in a society from one state to another, there is an institutional change (Banwo et al., 2021). Institutional change also represents adjustments to different aspects of institutions (Banwo et al., 2021). The shift from SASs to IFRSs and adjustments to corporate reporting practices in Nigeria in 2012 is an example of institutional change. The adoption of IFRSs in Nigeria is not only targeted at enthroning global best practices but also instilling act of financial reporting quality. Thus, with IFRS reporting in Nigeria, corporate entities including insurance companies are expected to generate financial information having "relevance" and "faithful representation" qualitative characteristics identifiable with IFRS corporate reporting.

2.3 Empirical Review

Chen and Wong (2004) analysed insurers' data of four countries in Asia (Malaysia, Japan, Taiwan and Singapore) using data from 1994-1999 except Taiwan (stopping at 1998) and found that insurer's size, liquidity, investment income, combined ratio, surplus growth and operating profit are drivers of general insurers' financial health but largely in reversal order. For life insurance companies, insurer's size, investment performance and changes in product mix and asset mix with more significant results from Japan compared to others but negatively.

Though the focus of Pasiouras and Gaganis (2013) using data of insurance companies excluding reinsurance firms in 46 countries over 2005-2007 was to establish the linkage between regulation and corporate soundness of insurance companies, evidence of some firm-specific factors controlled for having impact on the stability of insurance firms was reported. These factors include size, capital requirements and level of investments which have positive, negative and positive impact respectively.

Addendum to the findings of Shim (2017) for United States of America's (US) concentration-soundness nexus analysis of property-liability insurers is that insurer's size, asset growth and investment are ingredients of financial stability. The study further provided that insurance leverage, reinsurance ratio and level of catastrophes are inversely related to insurance firms' stability. Altuntas and Raunch's (2017) study which was restricted to property-liability insurers from 29 countries for the period 2004-2012 found that higher level of profitability as measured by return on equity (ROE) and investment incomes as well as less volatility of loss ratio and lower insurance leverage are ingredients of the soundness of insurance firms. The sign of coefficients of expenses ratio and size is negative and statistically insignificant. These results as found by Altuntas and Raunch (2017) are addendum to concentration-stability nexus which was established to be significantly negative.

From the analysis of risk of insolvency of general insurance companies in the United Kingdom (UK), Caporale et al. (2017) used data of 515 companies and found that probability of default (probable financial instability) at firm-level is caused by rapid growth of insurance premium, high insurance leverage and high reinsurance ratio. The study further established that there is higher level of insurers' financial stability (lower probability of default) when UK insurance companies are more profitable, more capitalised and in the habit of more usage of derivatives. The findings regarding size and claims growth are not statistically significant but positive and negative respectively in relation to level of insolvency risk. For Cummins et al. (2017), using the data of life insurance companies from 10 European Union countries over the period 1999-2011, the financial soundness of insurers are not only reinforced by the level of competition but also supported by insurer's size, level of reinsurance, higher proportion of invested assets and level of insurance leverage but reinsurance ratio and insurance leverage are not statistically significant. Cummins et al. (2017) also submitted that concentration ratio, market size and life insurance penetration are ingredients of insurers' corporate soundness but in reverse order.

The Central and Eastern European's (CEE) insurance market was examined by Kramarić et al. (2019) with the focus on Hungary, Croatia and Poland for a five-year period ranging between 2013 and 2017. Based on panel random-effects model, insurer's size and reinsurance ratio are true determinants of corporate stability of insurance companies in CEE but with statistical evidence favouring Croatia in terms of size (though coefficient of size is also positive for Hungary and Poland) but Hungary and Poland regarding reinsurance ratio. However, the coefficients of claims' growth, premium-surplus ratio and growth of gross written premium with mixed evidence among the sampled CEE's countries are not all statistically significant. For Kasman et al. (2020), the analysis of linkage of stability, competition and concentration in the Turkish insurance sector is categorized into non-life and life insurance sectors. As found by Kasman et al. (2020), it appears concentration and competition indicators are more favourable to Turkish non-life insurers' corporate soundness in terms of positive and statistically significant coefficients than life insurance companies. This is also evident for other insurance-specific factors including size and invested assets. However, the insurance leverage is better for life insurers but premium ceded to reinsurance is unfavourable to both except that it is conclusive for life insurance companies. The coefficient of liquidity found is not economically relevant given its zero coefficient in all models though positive.

Upon confirming empirically the appropriateness of Z-score measured as addition of return on assets (ROA) and shareholders' funds when scaled by standard deviation of ROA for Spanish insurance market of 182 insurance firms over the period 2010-2017, Moreno et al. (2022) established the explanatory power of some insurance-specific factors in predicting insurer's corporate soundness. These factors include size, capitalisation and profitability having significantly positive coefficients. However, the coefficients of underwriting risk and reinsurance ratio are negative while that of portfolio risk is positive but all are largely statistically insignificant. Mustafa (2022) examined the determining factors of insurance companies' financial stability in 8 Middle-East and North-Africa (MENA) countries but with reference to COVID-19 pandemic using quarterly data from second quarter of 2018 to fourth quarter of 2021. The findings showed using the outputs of two-step system GMM regression model that during pre-COVID 19 insurance-specific factors explaining significantly insurers' corporate soundness are premium retention ratio, invested assets ratio, market concentration and insurance leverage ratio but the coefficient of insurance leverage is negative.

However, during COVID-19 pandemic, loss ratio and insurer's size are two insurance-specific factors that empirically and favourably explain MENA insurance firms' stability given their statistically significant positive coefficients (Mustafa, 2022). In both periods as further established by Mustafa (2022), reinsurance ratio, gross written premium growth, age, receivables-assets ratio and capital ratio are not significant. While loss ratio and size are identifiable with pre-COVID-19 period, retention ratio, invested assets, insurance leverage and market concentration are reported during COVID-19 period as insignificant insurance-specific factors. Earlier Puławska (2021) had followed a similar approach but using data of the insurance firms from five European countries (Belgium, Germany, Poland, Italy and France) as well as three measures of insurer's soundness (ROA, Z-score and Solvency II ratio). Regarding Z-score and Solvency II ratio, the coefficient of COVID-19 was found to be positive but statistically significant in the latter. However, only profitability is the firm-specific determinant of European insurance firms as found by Puławska (2021) among other factors including size, leverage and liquidity.

Lee (2023) identified some firm-specific determinants of Taiwanese insurance firms' corporate soundness while providing linkage between economic crisis and the insurers' stability. The empirically identified factors while Z-score is the outcome variable are profitability, market share, business line concentration, loss ratio and insurance leverage with the last two being negative indicating all the factors are favourable towards Taiwanese insurance firms. With solvency ratio as a measure of financial stability, ROA, return on investment, line of business concentration and insurer's age with positive coefficients as well as insurer's size, premium long-tailed business line, loss ratio and insurance leverage with negative coefficients are significant firm-specific factors. Lee (2023) established no conclusive evidence regarding the effect of reinsurance ratio. From the focus on 46 Kenyan insurance firms over the period 2014-2021, Ritho (2024) empirical findings based on panel random-effects model are that leverage and loss ratio have significantly negative impact while insurer's size and capital adequacy have positive effect on the financial soundness of insurance companies. In the Ethiopian context, what Kebede et al. (2024) identified through empirical analysis of 11 insurance firms to be causative to the reduction in corporate financial distress (indicated by Z-score) are improved profitability, size, level of liquidity, diversification and growth in earnings. Conversely, leverage, claims ratio and asset tangibility contribute to increased corporate financial distress of Ethiopian insurance firms (Kebede et al., 2024). The coefficient of insurer's age as found is negative (being favourable) but not statistically significant.

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Although Kebede et al. (2024), Lee (2023) and Ritho (2024) followed similar approach adopted in this study in terms of moderating effect, they used different moderators. However, some level of deductions can be made from some previous studies (Adeyemo et al., 2020; Chukwu & Aloy-Ezirim, 2020; Kassamany et al., 2023) among others. From the work of Abdallah et al. (2018) with focus on the stakeholders' expectation of adoption of IFRS for European insurance industry, empirical analyses showed largely that level of positive reaction is low indicating that benefits expected seldom outweigh the costs. However, investors' expected benefits of IFRS adoption for non-life insurers are in excess of the costs. In the Nigerian context, the possibility of IFRS reporting reinforcing reporting timeliness, IFRS adoption cost, level of transparency and improved professionalism of practitioners and preparers of insurers' financial reports was found by Adeyemo et al. (2020). This was supported by individual variables' positive correlations with IFRS reporting quality (Adeyemo et al, 2020) but the results were based on the perceptions of relevant stakeholders. However, using firm-specific data for pre and post IFRS adoption effect, the results of pair sample t-test revealed that there is no significant improvement in the profitability, underwriting risk and reinsurance ceded ratio subsequent to the switch to IFRS reporting in Nigeria (Adeyemo et al., 2020).

Contrary to the findings of Adeyemo et al. (2020), Chukwu and Aloy-Ezirim (2020) could not establish conclusive evidence on the impact of mandatory switch to IFRS reporting on the reporting timeliness of Nigerian insurers but based on firm-level data rather than stakeholders' perceptions. Another Nigerian study, Shiyanbola et al. (2022) opted for the impact of a specific IFRS standard, in this case IFRS 17 which is designed to replace IFRS 4. Based on the perceptions of relevant practitioners in the insurance industry, two aspects of the IFRS 17, measurement models and system and data, were believed to be causative to insurers' improved operating performance while another aspect, considered to be internal control, has tendency to be inversely related to the performance of insurance firms in Nigeria (Shiyanbola et al., 2022). The basic deduction from Kassamany et al. (2023) empirical linkage of performance, volatility and liquidity with risk disclosures of insurance companies in the UK and Canada is that IFRS mandatory reporting considerably enhances the effect of risk disclosures on performance and market liquidity.

3. MATERIAL AND METHODS

Since the information required to attain the objective of this study is contained in the financial statements of the insurance companies, data, as related to the study's variables, were extracted manually from the annual reports of listed insurance companies in Nigeria. As at the end of third quarter of 2024 when data collection was completed, there were 27 insurance companies listed on the Nigerian Exchange Group (NGX) but data were available for 22 insurance companies based on the study' s criteria. This involves a listed insurer having annual reports covering 50% of the study's sampled period between 2007 and 2023. This is regardless of whether annual reports were completely available from 2007-2023 but the insurance company must have some reports for pre-IFRS period (2007-2011) and IFRS period (2012-2023). In case an insurance company has been delisted and/or has partly ceased to operate, availability of its financial information in the public domain covering at least 50% of the study's period qualifies it for selection into the study's sampled insurers. Using these criteria, an unbalanced panel of 305 insurer-year observations instead of probable 374 firm-year observations were used for analysis as not all sampled firms have information for the full period. Data, at macroeconomic and industry levels, were also obtained but from other sources including World Development Indicators of the World Bank Group, Central Bank of Nigeria (CBN) Statistical Bulletin and National of Bureau of Statistics (NBS). Data from these sources allowed for the use of macroeconomic and insurance industry-specific variables as control variables.

Data were analysed using basic static panel regression models since the study is longitudinal in design. This approach was applied alongside relevant diagnostic tests including Langragian multiplier test, heteroscedasticity and autocorrelation tests and subsequently culminated in the application of Driscoll and Kraay's (1998) linear regression estimator. Data analysis was also aided by descriptive statistics and related techniques including summary statistics of mean, standard deviation and range, correlation analysis and variance inflation factor (VIF) analysis to establish the basic features of study's variables, determine their relationship and identify the existence of multi-collinearity problem. Following the approach of previous studies (Kramarić et al., 2019; Moreno et al., 2022), Z-score is adopted as the measure of insurance firms' corporate soundness (IFCS). Z-score as a measure of bank and/or insurance firms' stability is often defined mathematically in the literature (Ritho, 2024; Salami et al., 2024) as follows:

$$Z - score_{it} = \frac{ROTA_{it} + OFTA_{it}}{\sigma ROTA_{ip}} \quad (1)$$

Where $ROTA_{it}$ is post-tax earnings scaled by total assets of insurer $'i'$ at period $'t'$; $OFTA_{it}$ is total equity scaled by total assets of insurer $'i'$ at period $'t'$ while $\sigma ROTA_{ip}$ is the standard deviation of $ROTA$ of insurer $'i'$ over sampled period $'p'$. Upon the derivation of Z-score and its subsequent use as an indicator of insurance firms' corporate soundness (IFCS), the following econometric model is specified to provide the linkage between insurance-specific factors (INSFACT) and IFCS following deductions from a number of previous studies (Caporale et al., 2017; Kramarić et al., 2019; Moreno et al., 2022; Mustafa, 2022; Ritho, 2024).

$$IFCS_{it} = \gamma_0 + \gamma_1 INSFACT_{it} + \gamma_2 INDMC_{it} + \mu_{it} \quad (2)$$

In equation (2), $INSFACT$ is vector variable of 10 insurance-specific factors, while $INDMC$ is a vector variable of industry-specific and macroeconomic variables controlled for. All variables in equation (2) are as described in Table 1.

To test the moderating influence of "relevance and faithful representation" quality of IFRS reporting (RFRR) as proposed in the second hypothesis (H_2), equation (3) is specified:

$$IFCS_{it} = \gamma_0 + \gamma_1 INSFACT_{it} + \gamma_2 RFRR_{it} + \gamma_3 (RFRR \times INSFACT)_{it} + \gamma_4 INDMC_{it} + \mu_{it} \quad (3)$$

In equation (3), $RFRR \times INSFACT$ represents a vector variable of $RFRR$ interaction with each component of $INSFACT$ other than insurer's age $(INSAGE)$. These interaction terms and others contained in equation (3) are described in Table 1.

Table 1 Description and Measurement of Study's Variables

S/N	Variable	Variable Name	Descriptions	a priori
1	IFCS	Insurance firms' corporate soundness	Z-score as specified in equation (1)	
2	GWPG	Gross Written Premium Growth	Difference between gross written premium (GWP) in year t and GWP in year t-1 scaled by GWP in year t-1	+
3	CLMG	Claims Growth	Difference between claims in year t and claims in year t-1 scaled by claims in year t-1	-
4	PCR	Share of Premium Ceded to Reinsurance	Ratio of premium ceded to gross written premium	+
5	PSR	Insurance Leverage	Ratio of net premiums to owners' total equity	-

6	SIZE	Insurer's Size	Natural logarithm of net premium earned	+
7	PRR	Premium Retention Ratio	Ratio of net premiums to gross written premium	-
8	CAR	Capital Adequacy Ratio	Ratio of Shareholders' funds to total assets	+
9	LSSR	Loss Ratio	Insurance claims incurred scaled by net premium	-
10	PROF	Profitability	Post-tax earnings scaled by owners' total equity	+
11	INSAGE	Insurer's Age	Natural logarithm of insurer's age in years since establishment	+
12	RFRR	Relevance and Faithful Representation	"1" for IFRS period (2012-2023) and "0" for pre-IFRS period (2007-2011)	+
13	RFRR x GWPG	IFRS and Premium Growth	Interaction of IFRS reporting and Growth in Gross Premium	+
14	RFRR x CLMG	IFRS and Claims Growth	Interaction of IFRS reporting and Growth in Claims Incurred	-
15	RFRR x PCR	IFRS and Premium Ceded to Reinsurance	Reinsurance ratio during IFRS	+
16	RFRR x PSR	IFRS and Insurance Leverage	Insurance Leverage during IFRS	-
17	RFRR x SIZE	IFRS and Insurer's Size	Insurer's Size during IFRS	+
18	RFRR x PRR	IFRS and Premium Retention	Premium retention ratio during IFRS	-
19	RFRR x CAR	IFRS and Insurance Capital Ratio	Insurer's Capital adequacy during IFRS	+
20	RFRR x LSSR	IFRS and Loss Ratio	Insurer's claims in premium during IFRS	-
21	RFRR x PROF	IFRS and Return on owners' funds	Interaction of return on owners' funds and IFRS reporting	+
22	INSGDP	Premium in GDP	Ratio of Insurance Premium to GDP	+
23	GDPR	Real GDP growth	Annual Real GDP growth rate	+
24	CRSS	Economic Crisis	"1" for economic crisis period: global financial crisis (2008, 2009); local economic recession (2016, 2017) and COVID-19 period (2020), Otherwise "0".	-

Source: Authors' Compilation (2024) based on the study's conceptual framework

4. RESULT AND DISCUSSIONS

4.1 Data Analysis

This section presents the results of the analysis of the relevant insurer-level data in relation to insurance firms' corporate soundness in Nigeria. In specific, the results of descriptive statistics, correlation analysis, VIF and regression models are presented. This section also contains discussion of the study's results.

4.1.1 Descriptive Statistics

The results of descriptive statistics using mean, standard deviation and range are presented in Table 2 but in three categories of "whole sample period", "IFRS period" and "pre-IFRS period".

Table 2 Study's Descriptive Statistics

SAMPLE PERIOD	Variable	Observation	Mean	Std. Dev.	Min	Max
WHOLE SAMPLED PERIOD	IFCS	305	12.3890	10.7158	-15.0564	38.8992
	GWPG	305	0.2466	0.8757	-0.9123	12.5519
	CLMG	305	0.3475	0.8488	-0.8723	9.0712
	PCR	305	0.2618	0.1544	0.0022	0.7058
	PSR	305	0.6225	1.6891	-14.8044	15.9331
	SIZE	305	22.1161	1.0469	19.3206	25.2033
	PRR	305	0.7377	0.1549	0.2942	0.9978
	CAR	305	0.3938	0.6131	-4.0610	0.9169
	LSSR	305	0.4080	0.3213	0.0270	3.1642
	PROF	305	0.0427	0.2624	-1.8804	1.2275
	INSAGE	305	3.6019	0.3708	2.6391	4.1744
	INSGDP	305	0.0016	0.0002	0.0014	0.0021
	GDPR	305	0.0348	0.0291	-0.0179	0.0804
	CRSS	305	0.2852	0.4523	0.0000	1.0000
IFRS PERIOD	IFCS	241	11.6977	10.7402	-15.0564	38.8992
	GWPG	241	0.1696	0.5068	-0.8141	4.8167
	CLMG	241	0.3267	0.9032	-0.8433	9.0712
	PCR	241	0.2824	0.1509	0.0023	0.7058
	PSR	241	0.6519	1.8872	-14.8044	15.9331
	SIZE	241	22.2625	1.0700	19.5968	25.2033
	PRR	241	0.7180	0.1521	0.2942	0.9977
	CAR	241	0.3296	0.6639	-4.0610	0.9167
	LSSR	241	0.4375	0.2960	0.0270	1.8601
	PROF	241	0.0375	0.2803	-1.8804	1.2275
	INSAGE	241	3.6574	0.3413	2.8332	4.1744
	INSGDP	241	0.0016	0.0001	0.0014	0.0018
	GDPR	241	0.0259	0.0257	-0.0179	0.0667
	CRSS	241	0.2614	0.4403	0.0000	1.0000
pre-IFRS PERIOD	IFCS	64	14.9924	10.2926	-5.2990	36.4316
	GWPG	64	0.5364	1.6167	-0.9123	12.5519
	CLMG	64	0.4258	0.6005	-0.8723	2.6442

PCR	64	0.1842	0.1434	0.0022	0.5943
PSR	64	0.5118	0.4280	-0.8349	1.8825
SIZE	64	21.5645	0.7321	19.3206	23.5039
PRR	64	0.8119	0.1434	0.4057	0.9978
CAR	64	0.6356	0.2446	-0.7156	0.9169
LSSR	64	0.2968	0.3855	0.0619	3.1642
PROF	64	0.0623	0.1807	-0.6124	0.7608
INSAGE	64	3.3929	0.4045	2.6391	3.9703
INSGDP	64	0.0019	0.0002	0.0016	0.0021
GDPR	64	0.0682	0.0111	0.0531	0.0804
CRSS	64	0.3750	0.4880	0.0000	1.0000

Source: Authors' Computations (2024) based on STATA Version 15 Outputs

Except for the fact that more insurer-year observations are identifiable with IFRS period and that more financial information is available in the IFRS period, it appears the summary statistics are more favourable pre-IFRS period as presented in Table 2. The mean values of IFCS (Z-score), GWPG (gross written premium growth), PSR (premium to surplus ratio), CAR (capital adequacy), LSSR (loss ratio) and PROF (return on equity) are better pre-IFRS. In contrast, CLMG (claims growth), PCR (share of premium ceded), SIZE (natural log of net premium) and PRR (premium retention ratio) are superior in the IFRS period if reference is made to the study's "a priori". Notwithstanding these statistics, some level of confidence can still be expressed on the sustainability of Nigerian insurance firms on the whole. This reflects in the positive mean values of Z-score (IFCS) and premium growth (GWPG), moderate claims growth (CLMG), considerable level of premium ceded to reinsurance (PCR), positive mean values of capital ratio (CAR) and return on shareholders' equity (PROF) as well as moderate mean loss ratio (LSSR) regardless of their maximum and minimum values that call for a lot of questions. Other variables' summary statistics in Table 2 are as presented.

4.1.2 Correlation Analysis and Multi-collinearity Diagnostics

The results of pair-wise correlation analysis and VIF are presented in Tables 3 and 4 respectively. Aside pair-wise correlation, correlation matrix also reveals the results of multi-collinearity diagnostics alongside VIF.

Table 3 Correlation Matrix

Variable	IFCS	GWPG	CLMG	PCR	PSR	SIZE2	PRR	CAR	LSSR	PROF	INSAGE	RFRR	INSGDP	GDPR	CRSS
IFCS	1.00														
GWPG	0.03	1.00													
CLMG	0.09	0.13	1.00												
PCR	0.22	-0.12	0.01	1.00											
PSR	-0.04	0.04	0.02	-0.01	1.00										
SIZE	-0.13	0.08	0.04	-0.01	0.23	1.00									
PRR	-0.22	0.12	0.00	-0.99	0.03	0.01	1.00								
CAR	0.61	0.07	0.06	0.18	0.06	0.06	-0.18	1.00							
LSSR	-0.31	-0.20	0.14	0.07	-0.17	-0.09	-0.06	0.33	1.00						
PROF	0.19	0.00	0.03	0.16	-0.06	0.17	-0.16	0.12	-0.22	1.00					
INSAGE	-0.04	-0.04	0.00	-0.05	0.03	0.06	0.06	0.04	0.17	-0.18	1.00				
RFRR	-0.13	-0.17	-0.05	0.26	0.03	0.27	-0.25	0.20	0.18	-0.04	0.29	1.00			
INSGDP	0.11	0.09	0.09	-0.27	0.04	-0.19	0.26	0.18	-0.17	0.03	-0.22	-0.74	1.00		
GDPR	0.10	0.11	0.05	-0.23	0.02	-0.19	0.21	0.18	-0.13	0.05	-0.25	-0.59	0.58	1.00	
CRSS	0.02	-0.09	-0.03	0.01	-0.08	-0.09	0.01	0.01	-0.02	0.04	-0.01	-0.10	0.12	-0.44	1.00

Source: Authors' Computations (2024) based on STATA Version 15 Outputs

In terms of pair-wise correlation, GWPG, CLMG, PCR, CAR, and PROF among insurance-specific factors have positive relationship with IFCS. Conversely, negative relationship of PSR, SIZE, PRR, LSSR and INSAGE with IFCS is reported in Table 3. Regarding multi-collinearity, there is no any pair of variables with correlation coefficient >0.80 other than PRR and PCR with R = -0.99. In Table 4, similar relationship between PRR and PCR is also confirmed as only both variables have VIF higher than 10, tolerance (1/VIF) less than 0.10 and R-Squared higher than 0.90. This makes the specification of PRR and PCR together in a model statistically

inappropriate. Thus, they are separately specified and presented as separate models in Table 5 and Table 6.

Table 4 VIF Analysis

Variable	VIF	$\sqrt{VIF}$	Tolerance	R-Squared
GWPG	1.10	1.05	0.9072	0.0928
CLMG	1.09	1.04	0.9206	0.0794
PCR	35.07	5.92	0.0285	0.9715
PSR	1.13	1.06	0.8851	0.1149
SIZE	3.18	1.78	0.3145	0.6855
PRR	35.00	5.92	0.0286	0.9714
CAR	1.44	1.20	0.6965	0.3035
LSSR	1.52	1.23	0.6590	0.3410
PROF	1.19	1.09	0.8436	0.1564
INSAGE	1.25	1.12	0.8019	0.1981
INSGDP	2.14	1.46	0.4678	0.5322
GDPR	2.88	1.70	0.3474	0.6526
CRSS	1.85	1.36	0.5409	0.4591
Mean VIF			6.58	

Source: Authors' Computations (2024) based on STATA Version 15 Outputs

4.2 Regression Estimates and Test of Hypotheses

The study's regression estimates are presented based on the two hypotheses proposed: the impact of insurance-specific factors, without and with interaction of "relevance and faithful representation" of IFRS reporting in Table 5 and Table 6 respectively. The regression results presented in both tables are based on Driscoll and Kraay (1998) nonparametric covariance matrix estimator with heteroscedasticity consistent standard errors but as applicable to unbalanced panels (Hoechle, 2007) evident in this study. The evidential heteroscedastic, autocorrelated and cross-sectional dependence residuals as confirmed by statistical significance of Hetero, F-Auto and LMT-IND at $p<0.05$ respectively in Tables 5 and 6 for all models presented necessitate the choice of Driscoll and Kraay's (1998) estimator as further improved by Hoechle (2007).

Table 5 Firm-specific Factors and Insurers' Soundness: Without Interaction Terms

MODEL	Without PRR				Without PCR			
Variable	**Coef.**	**DKSE**	**t**	**P>|t|**	**Coef.**	**DKSE**	**t**	**P>|t|**
GWPG	-0.2509	0.1649	-1.52	0.148	-0.2505	0.1615	-1.55	0.140
CLMG	1.1464***	0.3877	2.96	0.009	1.1591***	0.3882	2.99	0.009
PCR	6.3456***	2.0814	3.05	0.008				
PRR					-6.5532***	2.2073	-2.97	0.009
PSR	-0.3083***	0.0754	-4.09	0.001	-0.2995***	0.0774	-3.87	0.001
SIZE	-2.0192***	0.3415	-5.91	0.000	-2.0086***	0.3429	-5.86	0.000
CAR	9.5747***	0.6749	14.19	0.000	9.5580***	0.6826	14.00	0.000
LSSR	-5.1938***	0.5882	-8.83	0.000	-5.1869***	0.5997	-8.65	0.000
PROF	4.4323***	0.7416	5.98	0.000	4.3936***	0.7555	5.82	0.000
INSAGE	-0.4093	0.8163	-0.50	0.623	-0.3662	0.7947	-0.46	0.651
INSGDP	729.3206	730.9137	1.00	0.333	696.3473	712.2623	0.98	0.343
GDPR	-28.9344***	7.7775	-3.72	0.002	-28.3135***	7.8674	-3.60	0.002
CRSS	-1.1250	0.8083	-1.39	0.183	-1.0551	0.8195	-1.29	0.216
_cons	55.0159***	8.9786	6.13	0.000	61.1295***	10.6964	5.71	0.000
R^2	0.4485				0.4490			
F-stat	4565(0.0000)***				3962.36(0.0000)***			
F-Auto	25.719(0.0001)***				25.606(0.0001)***			
LMT-IND	395.044(0.0000)***				391.793(0.0000)***			
Hetero	467.56(0.0000)***				467.18(0.0000)***			
Observation	305				305			
No of Groups	22				22			
Model Type	Driscoll and Kraay's (1998) Estimator				Driscoll and Kraay's (1998) Estimator			

Source: Authors' Computations (2024) based on STATA Version 15 Outputs. Note: ***p<0.01

4.2.1 Hypothesis I

Based on the results of linear regression with Driscoll-Kraay standard errors (DKSE) as in Table 5, it is evident largely that the study's first hypothesis is rejected. This is evident from the statistically significant coefficients of 8 out of 10 insurance-specific factors estimated. However, not all of them align with the study's "a priori expectation". The significantly positive coefficients of PCR (coef = 6.35; p<0.01), CAR (coef = 9.57; p<0.01) and PROF (coef = 4.43; p<0.01) on one hand and the significantly negative coefficients of PRR (coef = -6.55; p<0.01), PSR (coef = -0.31; p<0.01) and LSSR (coef = -5.19; p<0.01) on the other hand agree with the study's "a priori expectation". The signs of coefficients of GWPG, CLMG, SIZE and INSAGE are all contrary to the study's "a priori". However, coefficients of SIZE (t = -5.91; p<0.01) and CLMG (t = 2.96; p<0.01) are statistically significant.

The results show that share of premium ceded (PCR), capital adequacy (CAR), profitability (PROF) and claims growth (CLMG) have significantly positive impact on the soundness of Nigerian insurance firms. In contrast, premium retention (PRR), premium to surplus ratio (PSR), loss ratio (LSSR) and insurer's size (SIZE) have statistically significant negative effect on the stability of Nigerian insurance firms. The negative impact of premium growth (GWPG) and insurer's age (INSAGE) has no economic relevance because of their statistically insignificant coefficients. Among the control variables only the coefficient of real GDP growth rate (GDPR) is statistically significant but contrary to the study's "a priori". The coefficients of insurance premium to GDP (INSGDP) and economic crisis (CRSS) which are positive and negative respectively are in line with the study's "a priori".

4.2.2 Hypothesis II

In Table 6, upon the inclusion of RFRR and its interaction with insurance-specific factors adopted other than INSAGE, it is observed that the behaviour of each of these factors do not change except SIZE as contained in Table 6. This indicates that positive coefficients of CLMG, PCR, CAR and PROF are maintained. Also, negative coefficients of GWPG, PSR, PRR, LSSR and INSAGE are intact. Regarding the improvement in the explanatory power of the insurance-specific factors on the financial soundness of Nigerian insurance firms upon adoption of financial reporting standings rich in "relevance and faithful representation qualitative information (IFRS), it is evident that improvement is identifiable only with 3 variables. These are claims growth (CLMG) which transforms from positive to negative sign of coefficient, loss ratio (LLSR) which retains its negative coefficient and statistical significance and somehow premium growth (GWPG) which transforms from negative to positive coefficient though not statistically significant when they are individually interacted with RFRR as reported in Table 5.

However, the coefficients of RFRR×CLMG, RFRR×PCR, RFRR×PRR, RFRR×PSR, RFRR×SIZE and RFRR×CAR are reversals of CLMG, PCR, PRR, PSR, SIZE and CAR and are contrary to their respective prior expectations. The evidence of no substantial improvement in the explanatory potential of insurance-specific factors on the corporate soundness of listed insurance firms in Nigeria makes

the retention of the study's second hypothesis a necessity. This shows that "there is no significant improvement in the explanatory power of firm-specific factors on the corporate soundness of listed insurance firms in Nigeria upon adoption of IFRS" as hypothesised. Despite higher number of reversals of the signs of coefficients of the adopted firm-specific factors during IFRS, results showed that during IFRS Nigerian insurance firms are financially sound given positive coefficient of RFRR in both models presented in Table 6. The coefficients of INSAGE, INSGDP, GDPR and CRSS are as previously reported in Table 5 in terms statistical significance and signs of coefficients.

Table 6 Firm-specific Factors and Insurers' Soundness: With Interaction Terms

MODEL	**Without PRR**				**Without PCR**			
Variable	**Coef.**	**DKSE**	**t**	**P>|t|**	**Coef.**	**DKSE**	**t**	**P>|t|**
GWPG	-0.101*	0.053	-1.91	0.074	-0.060	0.056	-1.07	0.302
CLMG	2.488***	0.737	3.38	0.004	2.543***	0.724	3.51	0.003
PCR	13.657***	2.128	6.42	0.000				
PRR					-15.562***	1.698	-9.16	0.000
PSR	-4.983***	0.779	-6.40	0.000	-4.839***	0.784	-6.17	0.000
SIZE	2.271***	0.569	3.99	0.001	2.292***	0.606	3.78	0.002
CAR	25.956***	1.148	22.61	0.000	26.327***	1.129	23.32	0.000
LSSR	-1.795**	0.803	-2.24	0.040	-1.775**	0.820	-2.16	0.046
PROF	2.727	2.674	1.02	0.323	2.413	2.522	0.96	0.353
INSAGE	-0.387	0.723	-0.53	0.600	-0.288	0.682	-0.42	0.678
RFRR	108.289***	15.304	7.08	0.000	98.336***	18.213	5.40	0.000
RFRR×GWPG	0.618	0.483	1.28	0.220	0.566	0.479	1.18	0.255
RFRR×CLMG	-1.665*	0.872	-1.91	0.074	-1.711*	0.861	-1.99	0.064
RFRR×PCR	-9.137***	2.739	-3.34	0.004				
RFRR×PRR					10.896***	2.558	4.26	0.001
RFRR×PSR	4.734***	0.779	6.08	0.000	4.596***	0.785	5.86	0.000
RFRR×SIZE	-4.478***	0.754	-5.94	0.000	-4.485***	0.780	-5.75	0.000
RFRR×CAR	-16.526***	1.257	-13.14	0.000	-16.922***	1.243	-13.62	0.000
RFRR×LSSR	-2.247*	1.099	-2.04	0.058	-2.277*	1.120	-2.03	0.059
RFRR×PROF	2.378	2.622	0.91	0.378	2.670	2.477	1.08	0.297
INSGDP	2089.844	1376.146	1.52	0.148	2175.423	1328.439	1.64	0.121
GDPR	-29.442***	6.873	-4.28	0.001	-28.002***	7.057	-3.97	0.001
CRSS	-1.117	0.673	-1.66	0.116	-1.008	0.687	-1.47	0.161
_cons	-51.257***	9.847	-5.21	0.000	-37.522***	12.439	-3.02	0.008
R^2	0.4777				0.4796			
F-stat	452232.2(0.0000)***				361712.15(0.0000)***			
F-Auto	21.555(0.0001)***				21.342(0.0001)***			
LMT-IND	414.053(0.0000)***				415.314(0.0000)***			
Hetero	441.96(0.0000)***				441.09(0.0000)***			
Observation	305				305			

No of Groups	22	22
Model Type	Driscoll and Kraay's (1998) Estimator	Driscoll and Kraay's (1998) Estimator

Source: Authors' Computations (2024) based on STATA Version 15 Outputs. Note: ***p<0.01, **p<0.05, *p<0.10

4.3 Discussion of Findings

While the first hypothesis is largely rejected indicating that firm-specific factors of Nigerian insurance companies are incidental to their improved financial soundness, the case of expected improvement while these firms are reported in IFRS could not be substantially confirmed. This shows, in the first instance, that improved financial soundness of Nigerian insurance firms is highly probable when they are identifiable with increased level of share of premium ceded to reinsurance, the level of premium retention ratio is low and premium to surplus ratio is on the downward trend. The better financial soundness of insurance firms is also subject to the insurance companies being adequately capitalised, having low proportion of policyholders' claims in net premium and having higher return on shareholders' funds. These findings as related to the six variables with favourable "a priori" indicating their behaviour reinforces the soundness of Nigerian insurance companies have been previously established. Among these studies are Pasiouras and Gaganis (2013) in relation to capital requirements, Shim (2017) regarding insurance leverage and level of loss incurred and Altuntas and Raunch (2017) in relation to insurer's profitability, leverage and loss incurred. Others are Caporale et al. (2017) with emphasis on insurance to surplus ratio, profitability and better capitalisation, Kramarić et al. (2019) reinforcing the relevance of level of reinsurance and Puławska (2021) regarding profitability. Reference can also be made to the findings of Moreno et al. (2022) for capitalisation and profitability, Mustafa (2022) for insurance leverage and Lee (2023) as well as Ritho (2024) for profitability, loss ratio and insurance leverage and capital adequacy. For share of premium ceded to reinsurance level, the present findings are contrary to those of Kasman et al. (2020) and Moreno et al. (2022).

The fact that upward claims growth (CLMG) is favourable to insurance firms' corporate soundness, though contrary to the "a priori" as established in this study, it remains a good omen for the going concern of these firms. This reinforces the fact

that Nigerian insurance firms have the capacity to withstand any economic shocks regardless of level. This may be the rationale for evidence of no conclusion regarding the effect of economic crisis (CRSS) as its coefficient in all models is statistically insignificant. The situation of insurer's size (SIZE) cannot receive similar implication like CLMG as SIZE should represent the strength of a company but contrary evidence is established in this study especially as presented in Table 5. This may prompt the withdrawal of investments in insurance firms by some stakeholders as increase in scale is noticeable. The study's findings related to SIZE are contrary to recent evidence in the literature (Ritho, 2024).

Similar to SIZE, the negative coefficient of INSAGE does not provide that older insurers who might have passed through a lot of downturns have tendency to be financially stable. So, age of an insurer does not guarantee its financial standing. This might be evident in Nigeria as a number of household names in the industry are either struggling to survive and/or undergoing serious technical insolvency. Nonetheless, the statistical insignificance of the variable (INSAGE) subjects the conclusion to other considerations. The study's finding regarding age has been previously confirmed (Kebede et al., 2024; Mustafa, 2022) but contradicts the conclusion of Lee (2023). If the insurance premium which is the main source of an insurer's revenue is inversely related to its stability, the question will be asked of what future holds for insurance business. Better still, the coefficient of GWPG is not statistically significant (Table 5). Thus, the conclusion requires other considerations to become definitive. This finding regarding GWPG can be compared to those of Mustafa (2022) and Lee (2023).

The traces of improved financial reporting quality is noticeable given the evidential financial stability of Nigerian insurance companies upon switch to IFRS reporting as revealed by the significantly positive coefficient of RFRR in Table 6. However, the corporate soundness is not highly embedded as only few of the factors examined contribute towards improved stability of these firms during the period. This is unveiled by the reversal of "a priori" of majority of these factors while these insurance firms are reporting in IFRS. This suggests that the so-called "relevance and faithful representation" qualitative characteristics are not manifesting in the corporate

reporting practices of these firms. This manifestation is only significantly evident in the behaviour of claims growth (CLMG) and loss ratio (LSSR). This reveals that relevance and faithful representation reporting has only positively reflected in the accounting for insurance claims as both CLMG and LSSR are components of policyholders claims in accounting for insurance business. The seemingly improved explanatory power of GWPG, cannot be fully relied upon as positive coefficient of RFRR×GWPG is devoid of statistical significance. Also, the positive coefficient of profitability (PROF) which equally remains as such while reporting in IFRS maintains its statistical insignificance. Apart from the statistical insignificance, also noticeable is the drop in the value of the coefficients upon reporting in IFRS. This largely low impact of relevance and faithful representation reporting considered to be IFRS as found in this study agrees with the empirical submission of Chukwu and Aloy-Ezirim (2020) but contrary to the findings of Shiyanbola et al. (2022) and Kassamany et al. (2023).

5. CONCLUSION AND RECOMMENDATIONS

This study has unveiled how "relevance and faithful representation" identifiable with IFRS reporting affected the corporate soundness of listed insurance firms in Nigeria. This was performed over the period 2007-2023 using insurance-level data manually extracted from the annual reports and audited financial statements of these firms. Data were analysed using Driscoll and Kraay's (1998) linear regression estimator subsequent to the establishment of residuals with heteroscedasticity, first-order autocorrelation and contemporaneous cross-sectional dependence. The results largely showed that insurer-specific factors contributing to the stability of listed insurance firms in Nigeria are not less than 6 among 10 examined. These factors with favourable impact on insurance firms' financial soundness are reinsurance ratio, premium retention ratio, premium to surplus ratio, loss ratio, profitability and capital adequacy. Two factors with inverse impact are claims' growth and insurer's size. The effect of insurance premium growth and insurer age lacks empirical conclusive evidence. However, during IFRS, favourable driving of corporate soundness of listed insurance firms in Nigeria dwindled being identifiable convincingly with loss ratio and claims growth. The study also reported some evidence of improvement via growth in insurance premium. The low-level of insurance-specific factors favourably driving Nigerian insurance firms' corporate soundness during IFRS is regardless of evidential stability of these firms during the period.

These findings beckon some level of improvement in relation to factors favourable to the corporate soundness of Nigerian insurance firms. The increased profitability in terms of return on shareholders' wealth, better capital adequacy and more share of insurance premium being ceded to reinsurance should be prioritised. More so, insurance firms in Nigeria need to ensure further reduction in loss ratio, proportion of insurance premium retained and premium to surplus ratio to further guarantee their corporate soundness. For factors unfavourable to their financial soundness, some level of attention is required to be paid to accounting for insurance claims and premium by both the preparers and the regulators. While positive claims-soundness nexus may indicate that Nigerian insurance firms are somehow resilient in terms of economic shocks, the negative premium-soundness relationship is uncalled for in all standards. Regarding the fact that the few of the factors examined are favourable during IFRS, means of improving level of compliance with IFRS by Nigerian insurance firms should be prioritised by relevant regulators including NAICOM and Financial Reporting Council of Nigeria. This should be done in a collaborative way to safeguard the stakeholders' investments and funds which are being lost in every moment of collapse and/or technical insolvency of these firms. In particular, since there is an improvement in the guidelines for accounting for insurance contracts, unalloyed compliance with IFRS 17 (replacing IFRS 4) which has just started in Nigeria recently should be made to be at satisfactory level. Also, other than solvency margin and few other factors deep-rooted in accounting for insurance factors, more benchmarks should be set for several factors related to insurance activities to ensure ease of identification of their financial health spontaneously prior to further analysis.

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