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Asset Quality and Financial Performance of Insurance Companies Listed in Nigeria

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Abstract: *This study evaluated the effect of asset quality on the financial performance of 14 insurance companies listed in Nigeria. it covered the period of 16 years from 2006-2021. Real estate, investment in unquoted equities and accounts receivables to total assets ratio (RURTA), accounts receivables to gross premium and reinsurance recoveries ratio (RGPRR), and equities to total assets (EQUTA) ratio were used to proxy asset quality, while expense ratio (EXPR) was used to proxy financial performance. Ordinary least squares multiple regression was employed to analyse the data of the study obtained from the annual report and accounts of the sampled insurance companies for the study period. The results showed that RURTA had positive insignificant effect on EXPR, while RGPRR and EQUTA had negative significant effect on EXPR.The results of this study show that the effect of accounts receivables to gross premium and reinsurance recoveries; and equities to total assets ratio on expense ratio is favourable, while the effect of real estate, unquoted equities and accounts receivables to total assets ratio on expense ratio is not favourable. Consequently, the results show that the quality of assets improved financial performance of the sampled listed insurance companies in Nigeria during the study period. The study, therefore recommended that Nigerian insurers should device strategic measures to control their firm-specific costs in order to further lower their expense ratio; and embark on aggressive enlightenment of existing and potential policyholders to sensitise them on the need to take up more or new insurance policies. The enlightenment campaign needs to be believable and consistent, considering the depth of mistrust in the mind of the populace. The credit policy and receivables collection practice of the insurers should be sustained, if not improved, as this would further drive down the expense ratio. Equities to total assets ratio should be increased to a value close to the threshold in order to bring down expense ratio.*

Keywords: *Accounts receivables, Asset quality, Financial performance, Real estate.*

1. INTRODUCTION

During the October, 2020 protests in major cities in Nigeria when Nigerian youths demanded the disbandment of the Special Anti-Robbery Squad (SARS), a unit of the Nigerian Police Force, there was massive destruction of private and public assets, including buildings, vehicles, and shopping malls. Ehiogu (2023) ascertained that for some EndSARS victims, who had insured their properties and businesses, they had to run to their underwriters for claims. This left insurance companies liable for claims amounting to ₦234billion. Adesanya (2022) also reported that between October, 2021 and January, 2022, the insurers in Nigeria paid a total of ₦11 billion as claim settlement to about 2,000 insured businesses that were affected by the protests.

Gam-Ikom (2020) lamented that insurance companies did not make adequate reserves for the nationwide upheaval of the EndSARS protests. Given the scale of the losses and

damage, some insurance companies even feared the industry could not afford to settle claims for assets destroyed. The industry was challenged because it did not prepare for a time like this, which ordinarily is what insurance is all about. The settlement of claims is the prime objective of insurance. If the insurance companies were not prepared, then it raises a fundamental question as to the insurance companies' ability to effectively carry out the core function of loss mitigation. In the light of this challenge, it becomes necessary to investigate the financial soundness of insurance companies in Nigeria. This investigation is done in this study using two of the components of the CARAMELS model (Capital adequacy; Asset quality; Reinsurance; Adequacy of claims and actuarial; Management efficiency; Earnings and profitability; Liquidity; and Sensitivity to market risk), namely asset quality, and earnings and profitability.

Rani and Shankar (2014) averred that insurance companies perform three distinct functions: risk pooling, diversifying and loss compensation; risk management; and resource mobilization. Insurance companies also contribute to the development of any economy through promotingfinancial stability, facilitating trade and commerce,enabling risk management, loss mitigation, and complementingthe government in social security programmes.The companies are also significant institutional investors, playing a critical role in providing financing to the real economy through investments in bonds, stocks and other assets. The quality of assets of insurance companies goes a long way in enabling the industry to perform its functions and in boosting its financial performance.

Rani and Shankar (2014) asserted that asset quality refers to the marketability of an asset, meaningthe quickness with which assets could be sold at a fair price, devoid of any major fluctuation and without suffering any major loss in value. The World Bank (WB) and International Monetary Fund (IMF) (2005), and Kwon and Wolfrom (2016) outlined the measures of asset quality to include real estate, investment in unquoted equities and accounts receivables to total assets ratio, accounts receivables to gross premium and reinsurance recoveries ratio, equities to total assets ratio, and non-performing loans to total gross loans. These measures apply to both life and non-life insurance companies, except non-performing loans to total gross loans, which applies only to life insurance. In line with these measures of asset quality, this study makes use of real estate to total assets ratio, investment in unquoted equities to total assets ratio, accounts receivables to total assets ratio, accounts receivables to gross premium ratio, accounts receivables to reinsurance recoveries ratio, and equities to total assets ratio.

Like other profit-oriented companies, insurance companies also use assets to enhance financial performance. Financial performance is the evaluation of the ability of a firm to utilise its assets from its main area of business to generate revenue, and includes analysis and interpretation of financial statements in such a way that it undertakes full diagnosis of the profitability and financial soundness of the firm (Edna, 2012). WB and IMF (2005), and Kwon and Wolfrom (2016) enumerated financial performance measures in the insurance industry to include loss ratio (net claims/net premium), expense ratio (expenses/net premium), combined ratio (addition of loss ratio and expense ratio),revisions to technical reserves/technical reserves, investment income/net premium, investment income/investment assets, and return on equity. Out of these ratios, only expense ratio and

return on equity apply to both life and non-life insurance. For this study, expense ratio would be used to measure financial performance, and this is because the study focuses on both life and non-life insurance companies listed in Nigeria.

Expense ratio is a profitability measure which expresses the relationship between total expenses and net premium written or net premium income of insurance companies (Ansari & Fola, 2014; Coronation Merchant Bank (CMB), 2019; Supriyaa, 2018). Over the years, this ratio has been on the rise, thus giving insurers serious concern. CMB (2019) reported that between 2014 and 2018, the expense ratio for non-life insurers averaged 67.5%, while for life insurance the average was 48.4%. For composite insurers, the average was 61%. The author lamented that these ratios were poor, and it blamed this situation on the lack of scale in the insurance industry, which is the inability of insurance companies to absorb fixed costs adequately. This situation must change to enable insurance companies in Nigeria perform financially well, and be able to fulfil its core function of paying claims.

The National Insurance Commission (NAICOM) (2023) reported that there are 56registered insurance companies in Nigeria. 13 are in the life insurance business,27 in general business (non-life), 12 in the composite business and four are in the general and takaful insurance. NAICOM (2022) also documented that the asset base of these companies stood at ₦2,486 billion in 2022. Non-life insurance accounted for ₦1,296 billion or 52.1% of the total assets, while life insurance accounted for ₦1,190billion or 47.9% of the total assets. However, the companies hold only 2.5% of financial sector assets in the country (Popoola, 2022).

NAICOM (2022) further reported that gross premium income of these insurers rose consistently from ₦426.2 billion in 2018 to ₦789.6 billion in 2022, an 85.3% growth rate during the period. Non-life insurance accounted for ₦455.3 billion or 57.6% of the total gross premium as at 2022, while life insurance accounted for ₦334.4 billion or 42.4% of the total gross premium as at 2022. Net premium income increased in the same period from ₦315.5 billion to ₦550.2 billion, representing 74.4% growth rate. Non-life insurance accounted for ₦245.1 billion or 44.5% of the total net premium as at 2022, while life insurance accounted for ₦305.1 billion or 55.5% of the total net premium as at 2022.

In terms of equities, the total capital raised by the insurance industry as at 2021 stood at ₦161 billion. This represents a paltry 0.7% of the total capital market capitalisation as at 2021 which was ₦22,301 billion (Nigerian Exchange Group (NGX, 2021). This poor capital market performance of the industry is reflected in the low value of the insurers. Also, despite the growth in assets and premium collection, the financial performance of the industry has left much to be desired, and concerns have been raised especially with regards to high expense ratio (CMB, 2019). With high expense ratio, profit is low, and so it is difficult to invest in quality assets.

CMB (2019) lamented that the insurance industry is a key component of any financial system, but unlike the banking industry in Nigeria, which has seen major growth since the last recapitalisation in 2005, the insurance industry has lagged behind. The damage caused during the Endsars protests has left many insurance companies overexposed to claims, but

the need for cover against future disturbances could strengthen the sector. The increased awareness for insurance cover has also opened opportunities for the development of the sector. This study, therefore, seeks to investigate the effect of asset quality on the financial performance of insurance companies listed in Nigeria in order to ascertain how the industry could position itself to take advantage of the opportunities opened for growth.

1.2 Statement ofthe Problem

The Nigerian insurance industry is regarded as the most under-performing in the financial sector, especially when compared with other insurance sectors across the world(CMB, 2019). The industry ranked 77th in the world in terms of premium collection in 2018, dropped to 79th in 2019 but improved 11 points to 68th in 2020 (NAICOM, 2019, 2020). The country also ranked 6th in Africa in 2021, having collected only $1.6 billion (2%) premium of the total $74 billion premium collected in the continent (Galal, 2023). Low premiums received bythe companies means their inability to invest in qualityassets which would help generate income. Also, 16% of the industry's investments are in real estate that continues to record poor rental yields on account of poor location, poor state of the infrastructure and high exposure to undeveloped land (Anonymous, 2020).

Augie (2020) reported that over the years, insurance companies in Nigeriahave been experiencing deteriorating underwriting margins, and weak investment performance, resulting in low profitability of the sector. The added pressure from weak valuations, unrealized losses on certain assets, premium growth that is failing to keep pace with loss cost trend, and weak capital have all caused the decline.Consequently, the industry expense ratio has continued to rise, and many insurers are not managing their investment portfolio to the extent gains would help compensate for rising claims, underwriting and management expenses. Huge losses have been eroding profitability and a lot of operators in the industry are cautious of risk. The reasons for the poor performance indicators may not be unconnected to inadequate attention given to the core indices of measuring insurance financial soundness. Apart from a few larger and stronger insurers, the market is characterized with many insurers with small statement of financial position and often weak business fundamentals. While the expense ratios are high, claims ratios seem to be too low to provide consumer value or too high to attain profitability.

Several studies have assessed the effect of the three major measures of asset quality (RURTA, RGPRR & EQUTA) on financial performance in the insurance industry (Ahmed & Sarkar, 2019; Ghimire & Kumar, 2014; Shankar & Rani, 2014; Smajla, 2014.; Stevanovic et al., 2022). However, no in-depth analysis was done; the studies mainly did comparative/descriptive analysis without going further to run regression to determine the effect of asset quality on financial performance. So, no inferences could be drawn from the results. This study, therefore, intends to fill this gap by using regressions to find out how asset quality affects the financial performance of listed insurance companies in Nigeria from 2006-2021. It is hoped that the findings of the study would help the industry come out of its wood.

Objectives of the Study

The main objective of this study is to investigate the effect of asset quality on the financial performance of insurance companies listed in Nigeria.The specific objectives of the study are to investigate the effect of:

(i) Real estate, investment in unquoted equities and accounts receivables to total assets ratio on the expense ratio of insurance companies listed in Nigeria.

(ii) Accounts receivables to gross premium and reinsurance recoveries on the expense ratio of insurance companies listed in Nigeria.

(iii) Equities to total assets ratio on the expense ratio of insurance companies listed in Nigeria.

2. REVIEW OF RELATED LITERATURE

The concepts discussed in this section are expense ratio; real estate to total assets; investment in unquoted equities to total assets; accounts receivables to total assets ratio; accounts receivables to gross premium; accounts receivables to reinsurance recoveries ratio; and equities to total assets ratio.

Concept of Financial Performance

Performance is one of the prime components in appraising a company's position in terms of failure or success (Akam & Ikegwuru, 2021). Firm's performance discloses its growth and development over time. Ikegwuru and Acee-Eke (2020) disclosed that, most businesses adopt the expression 'performance' to describe a compilation of measurements containing 'output efficiency, input efficiency and also transactional efficiency', thus, the express 'performance' may not be fully made clear by a solitary gauge. Eshna (2012) defines financial performance as the process of assessing the results of a firm's policies, operations and overall financial health over a specified period of time so as to ensure enough returns to the shareholders and maintain the market value of the firm. Financial performance expresses in fiscal terms, the profit or loss standing of any business enterprise (Ikegwuru & Lenyie, 2021). Financial performance refers to the extent to which the financial objectives of a firm are being met or have been achieved. It is also the evaluation of the ability of a firm to utilize its assets from its main area of business to generate revenue, and includes analysis and interpretation of financial statements in such a way that it undertakes full diagnosis of the profitability and financial soundness of the firm.

According to Orlitzky, Schmidt and Rynes (2003), financial performance is measured in three ways: accounting measures, market-based measures and survey measures. In the insurance industry, accounting indicators include loss ratio, expense ratio, revision to technical reserves/technical reserves, investment income/net premium, investment income/investment assets and ROE (Ghimire and Kumar, 2014; Shamjla, n.d.), whereas market-based indicators include price/gross premium, price-earnings ratio, and market/book value (Tobin's Q) (Chakraborty, 2016). For this study, expense ratio is used to measure financial performance. The ratio is used because it applies to both life and non-life insurance companies.

Expense ratio

This ratio is a measure of profitability which expresses the relationship between expenses of management and net premium written (Supriyaa, 2018).To Ansari and Fola (2014), it is

the ratio of underwriting or operating expenses to net premium.Underwriting expenses are the costs of obtaining new policies frominsurance carriers which technically includes all expenses other than claims.For Coronation Merchant Bank (2019:58), "the expense ratio measures administrative, underwriting and management expenses as a percentage of net premium income. In general, we believe that insurance companies need to keep this ratio below 40% if they are to run sustainable businesses".According to the Insurance Regulation 1993 as cited in Ghimire and Kumar (2014:12), "insurers should keep their management expenditure less than 30% of their net premium".

Supriyaa (2018) further holds that expense is the expenditure incurred by management while carrying on insurance business.Such expenses include net claims insured, acquisition expenses, maintenance cost, management expenses, underwriting expenses, advertisement, employee wages and sales force commissions, reinsurance, etc. The greater the expenditure, the lesser will be the profit margin and vice versa. On the other hand, net premium is the difference between gross premium earned and the amount paid by an insurance company for its reinsurance policies, and movement in reserve for unexpiredrisksceded to reinsurance companies. Net premium could either be net premiums written or net premium income, which is the new business brought in by the company in a given financial year, or net premium earned, which consists of both new business and revenue earned from existing policies. In this study net premiums written is used.

The expense ratio is important to policyholders because it affects the amount of money available to pay claims. A high expense ratio means that less money is available to pay claims, while a low expense ratio means that enough money is available to pay claims. The expense ratio is also important to insurance companies because it is a key metric that investors use to assess the financial health of an insurer. A high expense ratio indicates that an insurance company is less efficient and less profitable, which can make it more difficult to obtain funding and attract investors. Since the profitability of an insurer has an inverse correlation with the expense ratio, insurers strive to minimise underwriting expense in order to maximise profitability.Hafeman (2019:28) asserts that,"from a market conduct perspective, a high expense ratio raises the possibility that the insurer's products do not provide reasonable value to the policyholders, or that the insurer is competing for business through the payment of high commissions to intermediaries". Thus, the lower the expense ratio the better because it means more profits to the insurance company. For the purpose of this study, expense ratio is computed as total expenses divided by net premiums written.

Concept of Asset Quality

The Federal Deposit Insurance Corporation (2018) defined asset quality as the description of the level of financial power as well as risk that can be associated with a firm's assets such as the loans, investments and other items that appear on its statement of financial position. Rani and Shankar (2014) asserted that the quality of an asset is characterized by its marketability, meaningthe quickness with which it can be sold at a fair price, devoid of any major fluctuation and without suffering any major loss.Khalid (2012) also documented that firms that have better credit management practices and have management to ensure that their investments are well managed and that risk mitigation is a priority are considered to have better asset quality, whereas firms that have deficiency in credit management

practices and have poor risk management are considered to have poor asset quality. Therefore, the quality of assets a firm maintains relies entirely on the ability of the firm to manage credit risk, andthe quality of assets rather than total assets held by insurers determines their financial health.

Hafeman (2011) enumeratedthe types of investments in assets most commonly available to insurers to include cash in hand and cash at bank; short-term deposits;bonds; equities; properties; premiums receivable from policyholders; derivative securities; and goodwill. Furthermore, the measures of asset quality for insurance companies are real estate, unquoted equities and accounts receivables to total assets,accounts receivables to gross premium and reinsurance recoveries, equities to total assets ratio, and non-performing loans to total gross loans (NPLGL) (Ansari and Fola, 2014; Chakraborty, 2016; Ghimire and Kumar, 2014; Smajla, 2014; World Bank and International Monetary Fund, 2005). For this study, asset quality is measured by real estate, unquoted equities and accounts receivables to total assets ratio, accounts receivables to gross premium and reinsurance recoveries and equities to total assets ratio. These indicators are selected because they are common to both life insurance and non-life or general insurance.

Real estate, unquoted equities and accounts receivables to total assets ratio
Real estate
Real estate, also known as investment properties, refers to properties that comprise land and its tangible attachments or resources on it. The land includes the actual surface of the earth and any permanent natural objects such as water, dirt, or rock and any minerals of particulars under the surface, while the tangible attachments include buildings which could be used for residential, commercial or industrial purposes.

Underdeveloped land can be held vacant for future development or used to generate income through grazing, timber, agricultural or other uses. Even separate from other functional uses, land continues to increase in value over time, making it a consistently strategic investment. Residential real estate is developed land that is used for the purpose of occupation by families. It ranges from single-family homes to multi-family rental units. When the homes are leased or rented out, they could generate significant income in addition to appreciating in value over time. Commercial real estate is used to conduct business or professional activities. This form of real estate is bought with the intent to generate income through commercial means. The real estate owner allows other businesses to lease property on the land, which provides revenue. Industrial real estate includes farms, mines and land containing factories which are used to generate income. According to Section 25(3) of the Nigerian Insurance Act (2003), insurance companies doing general insurance business are not to invest more than 25% of their total assets in real properties, while those in life insurance business should not invest more than 35% of their total assets in real properties.

Investment inunquoted equities
Unquoted equities refer to shares which are not listed in the official list of a recognized stock exchange or shares that are not traded on traditional or regulated stock exchanges because they do not meet listing requirements (De Groen and Oliinyk, 2022). The shares are usually issued by smaller or new firms that cannot or do not wish to comply with the

requirements of an official exchange, and are traded on the over-the-counter market, which is not a proper physical market or location. The trade of stocks and securities takes place electronically without the interference of the stock exchange. These shares have a higher risk as they are less liquid than listed shares, and their valuations are less transparent as they do not have an actual price set on them.

By the provision of Section 24(13) of the Nigerian Insurance Act 2003, unquoted equities at cost are regarded as one of the admissible assets that are used to ascertain statutory solvency. In Nigeria, unquoted equities represent the fair value of financial assets through other comprehensive income and/or available for sale financial assets, and these were used in the study to compute unquoted equities.

Accounts receivables

In the Nigerian insurance industry, accounts receivables comprise due from contract holders (outstanding premiums), due from brokers, due from insurance companies, and due from direct insured. Ghimire and Kumar (2014) advise that premium amount should not be receivable, as it is always accounted on cash basis. Higher amount of accounts receivables means that an insurer has weak credit policy, and this can threaten the firm's solvency position and may lead to liquidity crises.

TotalAssets

Assets are the worth of a business establishment based on the market value of what the firm has in possession or can control (Mutumira, 2019). It is a resource controlled by the enterprise as a result of past events and from which future economic benefits are expected to flow to the enterprise. Assets are valuable because they can generate revenue or be converted into cash. They can be physical items, such as machinery, or intangible, such as intellectual property. Assets are reported on a company's statement of financial position.

In Nigeria, the typical assets found on an insurer's statement of financial position are cash and cash equivalents, financial assets (available-for-sale assets, loans and receivables,at fair value through profit or loss, at fair value through other comprehensive income, income at amortised cost), reinsurance assets, deferred acquisition costs, deferred tax assets, right-of-use-assets, other receivables and prepayments, investment property/real estate, long-term investments, short-term investments, intangible assets, property, plant and equipment, statutory deposit, government securities, loans to policy holders, etc. The basic reason profit-oriented business establishments acquire assets is to enable them generate enough revenue to earn profits.

Hafeman (2019) asserted that the real estate, unquoted equities and accounts receivables to total assets ratio is interested in the liquidity of the assets compared to the needs of the insurer to meet its obligations to policyholders as they fall due, and that these assets have the largest probability of being impaired. Both real estate and unquoted equities are illiquid assets, with real estate often being difficult to value in many jurisdictions, while receivables may expose the insurer to a considerable credit risk and overstate assets if there are insufficient provisions for uncollectible debts.

The implication of the illiquidity of these assets is that, where they constitute a high proportion of the total assets, insurance companies would find it difficult to convert them to cash easily so as to be able to settle their obligations to their clients as at when due. This could discourage the clients from either renewing their existing policies or taking up new policies, and this would affect premium collection which would in turn affect financial performance. Hafeman (2019) further averred that some supervisors would consider a ratio of 40% or more to be of concern, meaning that real estate, unquoted equities and account receivables should not be more than 40% of the total assets of an insurance company.

Accounts receivables to gross premium and reinsurance recoveries

Grosspremium

Gross premium is the total amount of premium charged by an insurance company to provide coverage to a policy holder. It includes both the cost of the actual insurance protection and the expenses associated with providing the coverage, such as administration costs, commissions, regulatory fees, and a margin for profit. It is typically composed of three primary components namely risk premium, loading charges and reserves.

Gross premium consists of two types namely gross premium written (GPW) and gross premium earned (GPE) or gross premium income (GPI). GPW is the totality of the premiums received in an accounting year irrespective of whether they relate to the accounting year or not, while GPE or GPI is the premium received that relates to a specific accounting year. For this study GPE/GPI is calculated as the difference between GPW and unearned premium.

Reinsurance recoveries

Insurance companies primarily make money from their underwriting activities. When an insurer underwrites a new policy, it collects premiums from policyholders, but it also takes on the liability associated with providing the coverage. Insurance regulators require insurers to set aside reserves to cover potential claims made against the policies that the insurer underwrites. The insurer will find its underwriting activities limited by how much risk it can handle. One way an insurer can reduce its risk exposure is by sharing some of this risk with reinsurance companies. Essentially, the insurer purchases insurance to cover a risk when it sells insurance policies to a reinsurer. That reinsurer agrees to cover some of that risk in exchange for a portion of the premiums the original insurer collects from the insured parties.

Reinsurance recoveries is, therefore, the amount received by an insurance company from reinsurers in respect of claims and contributions to claims settlement expenses less any refunds to reinsurers in respect of claims and contributions to claims settlement expenses, and salvage and other recoveries. It is the actual amount collected from a reinsurer in respect of claims receivable by an insurance company under a contract of reinsurance. They are an insurance company's losses that are recovered from reinsurance companies. Reinsurance recoveries are part of the income of an insurance company found in the income statement of the company or the statement of cash flow (cash flow from operating activities).

Hafeman (2019) holds that the accounts receivables to gross premium and reinsurance recoveries ratio provides an indication of the level of credit control exercised by an insurer in collecting premium and reinsurance claims. A high ratio suggests that the credit policy and collection practices of the insurer are weak, which would be of particular concern if receivables are a relatively large proportion of assets. Debtors are often either policyholders or intermediaries in the case of premium income or reinsurers in the case of reinsurance recoverables. Receivables may expose the insurer to a considerable credit risk and overstate assets if there are insufficient provisions for collection problems. When receivables are not collected as scheduled, liquidity is affected, which will also affect financial performance as less funds would be available for reinvestment.

Equities to total assets ratio

Equities

Equities are shares in the ownership of a company. People invest in equities because of their potential for high return in the form of dividend, which is a share of the company profits, or capital gains if the company's share price increases. Because ordinary shares, which are usually more voluminous than other shares, do not pay a fixed interest rate, they do not offer guaranteed income, and so they come with equity exposure, which is the risk that the investor would lose money if the value of the shares decline.

The equities used here refer to those shares which insurance companies in Nigeria bought in other companies, whether public or private, local or international. These shares appear in their statement of financial position as assets since they are a part of their investments. The shares usually come under long-term investments, investments in associate companies or investment in subsidiaries and the shares may either be quoted or unquoted.

According to Hafeman (2019), the equities to total assets ratio reveals the degree of an insurer's exposure to stock market risk and fluctuations of the economy. If the proportion of equities in total assets is significant, then the insurer's equity exposure is high, and so further examination of the portfolio composition is necessary, with special emphasis on the possible correlation of exposure on the asset and liability sides of the statement of financial position.Some supervisors would consider a ratio of 30% or more to be of concern.

Theoretical Underpinning

The theories discussed in this sub-section are resource-based theory, risk-return theory and innovations for profit theory.

Resource-based theory

Kshetri (2008) documented that this theory was propounded by Birger Wernerfelt in 1984. The theory is a method of analysing and identifying a firm's strategic advantages based on examining its distinct combination of assets, skills, capabilities, and intangibles as an organisation. The theory is concerned with internal firm characteristics and their effect on firm financial performance. It views the firm as a bundle of resources which are combined to create organisational capabilities which it can use to earn above average profitability. Each firm develops competencies from these resources, and when they are well developed, they become the source of the firm's competitive advantages.

This theoryaids in explaining profitability variation of intra-industry firms as it specifically addresses firm characteristics rather than industry factors. The financial resources are normally measured by leverage ratios which enable a firm to increase its project financing by borrowing from debt providers. Liquidity measures also the spontaneous financial resources available to conduct normal business operations. The physical resources as measured by the assets size is one of the tangible resources the firm can use to gain competitive advantage, whereas business experience of the firm gives the firm organisational capabilities that it can use to gain a competitive advantage over its competitors, thus being able to earn an above average financial performance.

Risk-Return theory

According to Bala *et al.* (2023), Harry Markowitz promulgated the risk-return optimisation theory in 1952. The model of selection mainly focuses on portfolio diversification, and states that stocks in a portfolio can either be of low risk and low returns or high risk and high returns. Optimising both risk and return can help maximise an investor's total portfolio return because invested money can render higher profits only if the investor will accept a higher possibility of losses. Investors use risk-return theory as one of the essential components of each investment decision, as well as to assess their portfolio as a whole. At the portfolio level, risk-return trade-off can include assessments of the concentration or the diversity of holdings, and whether the mix represents too much risk or a lower-than-desired potential for returns.

Innovations theory of profits

Aduloju and Akindipe (2022) documented that this theory was propounded by Joseph Schumpeter in 1934.The theory holds that successful inventions created by businesspeople result in financial gains, and so an entrepreneur's principal responsibility is to introduce innovations into the economy, and that financial rewards are his reward for carrying out this responsibility. According to Schumpeter, innovation refers to any new policy that an entrepreneur undertakes to reduce the overall cost of production or increase the demand for his products.

In order to generate profit, majority of insurance companies in Nigeria innovate in both the services they offer and in their organisational structures. When an insurer is able to sell more units of its policy at a higher price than previously or when the cost of the policy drops below the market price, effective innovations result in profits. As more people copy and use an innovation, the profits it generates tend to diminish. When other people start to use and become aware of an innovation, it no longer qualifies as unique or new. Because the new innovation is limited to him alone when an entrepreneur presents it, he is initially in a monopolistic position and gains significant profits. Profits will vanish after other people embrace it over time in an effort to obtain a piece of the action. So, it is important for an insurer to continually innovate in order to enjoy more profits.

The theory that underpins this study is the risk-return theory.This is because insurance firms are both risk-taking and profit-making businesses, and their operations deal with earning of profits in proportion to the risks attached to them. By doing their core business,

insurance companies are exposed to different types of risk, starting from underwriting risks that are accepted from insurers, through investment risks to the non-technical risks such as management risk, business risk and legal risk. The greater the risk, the higher would be the profitability of insurance businesses and vice versa. This notion is true when the insurance firms' risk appetite is lower than their risk tolerance.

Empirical Review

This section reviewed some of the recent empirical studies conducted on the effect of asset quality on financial performance. The essence of the assessment is to identify research design, sampling technique, variables used and the techniques of data analysis so that gaps inherent in the studies could be clearly identified.

Adedipe and Dallah (2023) applied CARAMEL model to investigate the financial performance of five life insurance businesses in Nigeria for a period of 10 years from 2010 to 2019. With respect to asset quality, the study used EQUTA, while expense ratio (ENP) was used to measure earnings and profitability. Ratio analysis was used to rate the financial soundness of the sampled insurance companies. Findings of the study showed that Custodian Allied Insurance recorded the highest mean EQUTA of 0.88, while Leadway Assurance had the lowest mean of 0.16. Leadway Assurance had the lowestmean of ENP,of 0.06, indicating cost effective operations which is a boost to its profitability asthe company had a bigger profit margin compared to other insurance companies and this put it in a positive financial condition. The highest mean ENP of 0.48 was recorded by Axa Mansard, showing that the company was less cost effective in its operations.

Rohilla (2023) employed the CARAMEL model to test and compare the financial soundness of one public and five private insurance companies in India for a period of 11 years from 2011-2012 to 2021-2022. For asset quality, the study used non-performing assets and prices of real estate assets, while for earnings and profitability, the study utilised return on equity, return on assets and expense ratio. Mean, standard deviation, F-Test and two tailed ANOVA were used to analyse the data of the study. The study found out that non-performing assets increased among the sampled companies during the study period. The same scenario was reported for expense ratio as majority of the sampled companies reported the expense ratio well above the benchmark of 100% set by the IRDA of India in 2018-2019.

Stevanovic et al. (2022) evaluated the internal indicators of financial stability of 12 and 14 insurance companies in the Republic of Serbia for three different periods of 2005 (12 companies), 2010 (14 companies) and 2015 (14 companies) using the CARAMEL framework. For asset quality, the study used intangible assets, real assets, securities and receivables to total assets ratio (represented by A1); receivables from the insured to total contracted premium ratio (represented by A2); and equity investments to total assets ratio (represented by A3). For financial performance, the study used reference retained claims to reference retained premium ratio and costs of insurance to reference retained premium ratio (represented by E4); investment income to reference retained premium ratio (represented by E5); andnet results to total capital ratio (represented by E8). Descriptive statistics was used to analyse the data for the study. The result of the study shows that on

the average, A1 declined from 35% in 2005 to 25% in 2010, but rose to 36% in 2015. A2 declined throughout the study period from 24% in 2005 to 19% in 2010 and 11% in 2015, indicating an increased level of collection of premium claims, and A3 also fell from 17% in 2005 to 6% in 2010 and 1% in 2015, indicating that the value of shares in the investment portfolio of the insurance companies decreased as the dominant share was taken over by real estate investing. With respect to financial performance, E4 rose from 83% in 2005 to 114% in 2010, but fell to 89% in 2015. Similarly, E5 rose from 76% in 2005 to 101% in 2010, but dropped to 97% in 2015. E8 declined throughout the study period from 11% in 2005 to 3% in 2010 and -1% in 2015.

Rani and Ramesh (2022) evaluated the performance of the Life Insurance Corporation of India for the 2022-2023 fiscal year using CARAMEL parameters. Non-performing assets (NPA) was used as proxy for asset quality, while expense ratio and claims ratio were proxy for efficiency and operational performance. Thematic analysis was used to analyse data. The results showed that NPA was minimal at 2.4%, indicating a well-managed investment portfolio. Expense ratio was 0.97%, reflecting optimal resource allocation and cost effectiveness, while claims ratio was 96.69%, signifying efficient claims payment.

Salameh (2022) ascertained the financial soundness of 19 insurance companies listed on the Amman Stock Exchange for a period of five years from 2014-2018 using the CARAMEL model. Shareholders' equity to total assets (SETA) was used to measure asset quality, while Loss Ratio (LOSSR), Expense Ratio (EXPENSER), ROA and ROE were used to measure earnings and profitability. Descriptive statistics was used to analyse the data for the study. The results showed that SETA recorded a poor mean of 0.267 with standard deviation of 0.035, and a good mean of 0.417 with standard deviation of 0.109. LOSSR recorded a poor mean of 0.826 with standard deviation of 0.097, and a good mean of 0.778 with standard deviation of 0.107. EXPENSER recorded a poor mean of 1.108 with standard deviation of 0.264, and a good mean of 0.954 with standard deviation of 0.409. ROA recorded a poor mean of 0.014 with standard deviation of 0.041, and a good mean of 0.030 with standard deviation of 0.020, while ROE recorded a poor mean of 0.032 with standard deviation of 0.153, and a good mean of 0.728 with standard deviation of 0.555. On the whole, there was minimum deviation of the actual results from the predicted or expected performance.

Harwani (2021) undertook a CARAMEL model analysis of four public sector non-life insurance companies in Indian for five years using financial statements from 2014/15 to 2018/19. Equities to total assets ratio (EQUTA) was used to measure asset quality, while net claim to net premium (LR) and profit after tax to equity share capital (ROE) were used to check the earning position of the selected companies. Comparative analysis was used to analyse the data. The result showed that, on a general note, EQUTA rose from 0.79% to 2.72% among the sampled companies during the study period, but the ratio fluctuated among the sampled companies.

Chedadeepu (2020) evaluated the financial performance of five life insurance companies (one public company and four private companies) in India for a period of nine years from 2008/09 to 2016/17 using the CARAMEL model. The author employed equities to total assets to measure asset quality, while ROA, ROE and EXPR were used to measure earnings

and profitability. The study utilised comparative analysis to analyse the data collected from the annual accounts of the sampled companies. The results showed that the public sector insurance company recorded a minimum equities to total assets ratio of 0.0178 in 2008 and a maximum 0.0342 in 2017, while for the private insurance companies, the minimum ratio of 0.0000 was recorded by SBI in 2013 and the maximum of 0.4186 was recorded by HDFC Standard in 2017. The minimum expense ratio for LIC was 0.0561 in 2008 and the maximum of 0.1096 was recorded in 2017, while for the private companies the minimum was 0.0654 recorded by SBI in 2010 and the maximum was 0.87 recorded by the same SBI in 2008.

Kalyani and Pathak (2020) conducted an analysis of financial soundness of two insurtech companies (Go Digit and Acko) operating in the non-life insurance sector in India for three years from 2017/18 to 2019/20 using the CARAMELS framework. Under asset quality, the authors used equities to total assets ratio (proportion of the total assets of a company that is financed by its equity capital), while under earnings and profitability, loss ratio, expense ratio, combined ratio, investment income to net premium ratio, and ROE were used. The data collected from the two companies was analysed by means of comparative analysis. The result showed that, in the case of Go Digit in the years 2017/18 and 2018/19, the equities were more than total assets (1.27 and 1.407 respectively) but in the year 2019-20 the ratio fell to 0.73, indicating that the equity share capital of the company was less than the total assets. In the case of Acko, the ratio was more than one in all the years (1.096 (2017-18); 2.63(2018-19); and 2.576 (2019/20), implying that the equities of the company were more than the total assetsof the company. Coming to expense ratio, in the case of Go digit, it decreased from 112.75% in the year 2017/18 to 47.76% in the year 2019/20. In case of Acko, the expense ratio was 1640.48% in 2017/18 and came down to 159.60% in 2019/20. The result showed that Go digit had better expense management thanAcko.

Ahmed and Sarkar (2019) measured insurance companies' financial soundness in Bangladesh with reference to 10 private sector life insurance companies listed on the Dhaka Stock Exchange (DSE) for a 10-year period from 2008-2017 using the CARAMELS model. For asset quality, the study used real estate, investment in unquoted equities, and receivables to total assets ratio (RURTA); receivables to gross premium and reinsurance recoveries ratio (RGPRR); and equities to total assets ratio (EQUTA), while for earnings and profitability, loss ratio (net claims to net premium) (LR);expense ratio (expense to net premium) (EXPR); combined ratio sum of loss ratio and expense ratio) (CR); investment income to net premium ratio (INVINP); and investment income to investment assets ratio (INVIIA) were employed. Descriptive statistics was used to analyse data.

The results showed that RURTA none of the firms met the minimum 10% requirement for investment in real estate and housing sector because they made no direct investment in the sector; the highest ratio recorded was 8.97%. Receivables and real estate investments could not keep pace with the sustained increase in the sampled insurance companies' total assets portfolio. RGPRR witnessed a mixed trend for all selected insurers, but the ratio was low as the highest ratio recorded was 14%. This was because in most of the years the sampled companies recorded zero account receivables in their financial statements. The analysis also shows that the sampled insurance companies made a sufficient volume of equity investments, especially in the shares of real estate and housing companies. The EQUTA

witnessed a mixed trend for all selected insurers with the highest ratio of 40.18%. In terms of earnings and profitability, the expense ratio witnessed a mixed trend for all selected insurers ranging from 13.20% to 345.86%. The highest average value of the expense ratio was 277.08%, while the lowest average value was 25.17%. The expense ratio was very high compared to the Insurance Development and Regulatory Authority (IDRA) standard of 20% for these companies.The study concluded thatthe financial soundness of the sampled life insurance companies over the study period was not satisfactory, and this was because the insurance companies did not fully comply with the standards of the IMF and the IDRA in Bangladesh. The study, therefore, recommended that the investment portfolio should be revised by increasing assets, equity, and real estate investments as prescribed by the IMF.Expenses should be reduced and emphasis be placed on expanding the business, and increasing the amount of premium to keep the prescribed boundary ratio.

Shrestha (2018) analyzed the financial performance of Shikhar insurance company, a non-life insurance company based in Nepal, using the CARAMEL model for the period of five years from 2012/13 to 2016/17. Asset quality was measured by EQUTA and RURTA, while earnings and profitability was measured by Loss Ratio (LR), EXPR, Combined Ratio (CR), and ROE. Financial ratios and descriptive statistics were used to analyse the data of the study. The findings of the study showed that EQUTA recorded a mean of 0.02 and a standard deviation of 0.01, indicating that on the average, Shikhar invested 2% of its assets in equities in other companies over the study period, and the values over the study period varied by 1%. For RURTA, the result showed a mean of 0.42 and a standard deviation of 0.10. This means that on the average, Shikhar invested 42% of its assets in real estate, unquoted equities and accounts receivables, and the variation was low at 10%. The average loss ratio was 0.41 and standard deviation was 0.03 which means about 40% of the premium collection amount was paid as claim during the study period.

Chakraborty (2016) carried out an assessment of the financial efficiencies of the four public sectors general insurance companies in India during the post-deregulation study period of seven years from 2008/09 to 2014/15 based on the CARAMEL framework. For asset quality, the study used non-performing loans to total gross loans ratio (NPA ratio), while for earnings and profitability, the study utilised loss ratio and return on equity. The study employed comparative analysis to analyse data. Results of the study showed that NPA ranged from a minimum of 4.94% recorded by United India in the year 2012/2013 to a maximum of 29.7% recorded by Oriental Insurance in 2009/2010. For loss ratio, the minimum of 77.54% was recorded by National Insurance in 2014/2015, while the maximum of 100.79% was recorded by New India Assurance in 2010/2011. With regards to return on equity, the result showed that the minimum of -2.98% was recorded by National Insurance in 2008/2009, while the maximum of 26.57% was recorded by the same National Insurance in 2013/2014.

3. METHODOLOGY

This study evaluated the effect of asset quality on the financial performance of 14 insurance companies listed in Nigeria for the period of 16 years from 2006-2021. Expost-facto research design was used. All the three measures of asset quality relating to both life and non-life insurance (RURTA, RGPRR, EQUTA) were employed, but only one measure of

earnings and profitability (EXPR) was used. OLS multiple regression was employed to analyse the data.

The model specified for this study is as follows:
FP = fRURTA, RGPRR, EQUTA…… (1)
The model is further expanded as follows:

$EXPR_{it} = \beta_0 + \beta_1 RURTA_{it} + \beta_2 RGPRR_{it} + \beta_3 EQUTA_{it} + e_{it}$.....(2)

Where:
EXPR = Expense ratio
RURTA = Real estate + Unquoted equities + Accounts receivables to Total assets ratio
RGPRR = Accounts receivables to Gross premium + Reinsurance recoveries ratio
EQUTA = Equities to Total assets ratio
e = Error term or residuals in the model (used to capture all other variables not included in the model)
i = Firm dimension or cross-sectional units of the variables (1-14)
t = Time dimension of the variables (2006-2021)
β_0 =Constant or Intercept
β_{1-3} = Coefficients of the independent variables to be estimated
Apriori expectation: It is expected that the independent variables would have negative effect on expense ratio.

4. RESULTS AND DISCUSSION

Descriptive Statistics

This section presents the descriptive statistics of the data generated on the dependent and independent variables of the study. Table 4.1 displays the calculated values for the mean, the standard deviation, the minimum and the maximum for each of the research variables.

Table 4.1: ***Descriptive Statistics***

Variables	Obs.	Mean	Standard Dev.	Minimum	Maximum
EXPR (%)	224	1.3468	0.6557	0	4.1870
RURTA (%)	224	0.1682	0.1434	0	0.6023
RGPRR (%)	224	0.1479	0.2482	0	1.7685
EQUTA (%)	224	0.1287	0.1341	0	0.7387

Source: STATA 14 Output

From Table 4.1, it can be seen that the insurance companies on the average incurred expenses of approximately 135%, which is 35% over and above the net written premium they collected during the study period, and far higher than the 40% attractive rate in the Nigerian insurance industry (Coronation Merchant Bank, 2019). The standard deviation of approximately 66% indicates a moderate dispersion among the insurers because the standard deviation is lower than the mean, suggesting that the observations are sparsely scattered about the mean.The minimum ratio of 0% shows that at least one of the insurers did not record any expenses or premium or that the ratio was very negligible, while the maximum ratio of approximately 419%, recorded by African Alliance in 2020, show that the company incurred expenses as high as more than four times of its net written premium.

The RURTA has a mean of 0.1682, which shows that on the average, real estate, unquoted equities and accounts receivables account for 16.82% of the total assets of the sampled insurance companies. This is far below the 40% insurance supervisors would consider dangerous (Hafeman, 2019). The standard deviation is 14.34%, indicating that the values of the ratio are sparsely spread around the mean. The minimum value of 0% shows that at least one of the insurers did not record values for any of the assets or that the values were insignificant compared to the total assets, while the highest ratio of 60.23% was recorded by Consolidated Hallmark Plc in 2009, indicating that the company's ratio is too high.

RGPRR has a mean value of 0.1479, which implies that on the average, the accounts receivables of the insurers is 14.79% of their gross premium and reinsurance recoveries. This ratio is low and so is an indication that the insurers' credit policy and credit collection practices are strong. The standard deviation is 24.82%, showing that there is a wide dispersion of the values from the mean. The minimum value of 0% indicates that at least one of the insurers did not record premium debtors or that the ratio is very negligible, which indicates a very strong credit policy and credit collection practice, while the maximum value is 177%, recorded by Guinea Insurance Plc in 2007, shows that the company's credit policy and credit collection practice is significantly weak.

EQUTA has a mean of 0.1287, which shows that on the average, the sampled insurance companies invested 12.87% of their assets in the equity shares of other companies. This is well below the 30% insurance supervisors would consider not healthy (Hafeman, 2019), indicating that the insurers have a low exposure to stock market risk. The standard deviation of 13.41% shows that there is high dispersion of the values from the mean. The minimum value of 0% at least one of the companies did not invest in shares of other companies or that the investment was very negligible compared to the total assets, while the maximum value of 73.87% was recorded by Regency Alliance Plc in 2006.

Correlation Analysis

Tables 4.2 shows the result of the Pearson correlation to determine the strength of the association among the dependent and independent variables.

Table 4.2: Correlation matrix of dependent and independent variables (Obs – 224)

	EXPR	RURTA	RGPRR	EQUTA
EXPR	1.0000			
RURTA	-0.0821	1.0000		
RGPRR	-0.2813	0.3964	1.0000	
EQUTA	-0.1343	-0.1499	0.0036	1.0000

Source: Stata 14 Output

Table 4.2 contains correlation coefficient values between the dependent and independentvariables as well as among the independent variables themselves. It is observed that all the variables correlate negatively with EXPR, and they show a weak

relationship. The relationship ranges from a coefficient of -0.0821 to -0.2813. Thus, there is no correlation coefficient greater than 0.8, and so no problem of multicollinearity exists. The variables also have a coefficient of 1.0000, which shows that each of them has a perfect relationship with itself.

4.2 Regression Results

This section presents the regression resultsbased on the OLS regression. The results are presented in Table 4.6.

Table 4.6:Regression Results

Variables	OLS		
	Coef.	**t**	**P>|t|**
Constants	1.5325	18.98	0.000
RURTA	0.0516	0.16	0.874
RGPRR	-0.7540	-4.08	0.000
EQUTA	-0.6438	-2.03	0.044
R^2	0.0970		
F-Stat	7.88		
Prob>F	0.0001		
Hettest	0.8817		

Source: STATA 14 Output

Based on the results in Table 4.6, the model of the study is outlined as follows:

$$\mathbf{EXPR_{it} = 1.5325 + 0.0516RURTA_{it} - 0.7540RGPRR_{it} + 0.6438EQUTA_{it} + e_{it}}$$

From Table 4.6 it can be seen that the F-statistics, which is used to test the hypothesis that a proposed regression model fits the data well, is 7.88 at 1% level of significance. This proves that the model is fit and the explanatory variables are properly selected, combined and used. The table also shows that the coefficient of determination (r^2) is approximately 10%, implying that the independent variables jointly account for 10% of variation in EXPR, and the remaining 90% were not captured by the model of the study.

RURTA has a coefficient value of 0.0516, which connotes that RURTA positively affects EXPR, and that a rise in RURTA by 1% would lead to a rise in EXPR by 5% in the listed insurance companies in Nigeria. RGPRR has a coefficient value of -0.7540, which indicatesthat RGPRR has negative effect on EXPR, and that a leap in RGPRR by 1% would lead to a fall in EXPR by 75.4%. EQUTA has a coefficient value of -0.6438, implyingthat EQUTA has negative effect on EXPR, and an increase in EQUTA by 1% would lead to a decrease in EXPR by 66.41%.

5 DISCUSSION OF RESULTS

In this section, major findings from the results in Table 4.6 of the study are discussed. For clarity of presentation and ease of understanding, the discussion of the findings is dividedinto threesub-sections with each sub-section focused on each of the independent variables and the dependent variable.

Real estate, investment in unquoted equities and accounts receivables to total assets ratioand expense ratio

RURTA ratio has a coefficient value of 0.0516, t-statistics value of 0.16 with a probability of 0.874. This connotes that RURTA positively, but insignificantly affects EXPR, and that an increase in RURTA by 1% would lead to a rise in EXPR by 5% in the listed insurance companies in Nigeria. This result answers our research question one and achieves our objective one which seeks to find out the effect of real estate, unquoted equities and accounts receivables to total assets ratio on the expense ratio of sampled listed insurance companies in Nigeria. This result, however, does not meet the apriori expectation. Additionally, it does not conform with the resource-based theory which views the firm as a bundle of assets, which are combined to create organisational capabilities which the firm can use to earn above average profitability.

With high expense ratio, the insurance companies cannot earn good profit. Also, the result also does not concur with the risk-return theory which affirms that where high risk is associated with a portfolio, high returns should be earned. More investments in real estate, investment in unquoted equities and accounts receivables and other assets entails higher risk, but higher expense ratio does not result in higher returns.

Real estate is a major component in the RURTA ratio, and where investment in real estate is high, a relatively small deterioration in the value of real estate could cause financial difficulty for a firm since they are less easy to convert to liquid cash. This could raise costs for the firm, which would have an adverse impact on the EXPR. This explains why insurance supervisors would want the RURTA ratio to be kept below 40%.

Accounts receivables to gross premium and reinsurance recoveries and expense ratio
RGPRR has a coefficient value of -0.7540,t-statistics value of -4.08 with a probability of 0.000. This implies that RGPRR has negative but significant effect on EXPR, and that an increase in RGPRR by 1% would lead to a fall in EXPR by 75.40% in the sampled listed insurance companies in Nigeria. This result answers our research question two and achieves our objective two which seeks to find out how accounts receivables to gross premium and reinsurance recoveries affects the expense ratio of listed insurance companies in Nigeria. The result is consistent with the apriori expectation, and is supported by the risk-return theory and the innovations theory of profits.

This result suggests that the listed insurance companies in Nigeria have managed their accounts receivables well. The fact that the expense ratio reduces when the accounts receivables to gross premium and reinsurance recoveries ratio increases attests to the fact that the companies are efficient in their collection of receivables and so they do not need to make provisions for bad and doubtful debt. Provision for account receivables increases expense.

Equities to total assets ratio and expense ratio
EQUTA has a coefficient value of -0.6438,t-statistics value of -2.03 with a probability of 0.044. This implies that EQUTA has negative but significant effect on EXPR, and an increase in EQUTA by 1% would lead to a decrease in EXPR by 64.38% in the sampled listed insurance companies in Nigeria. This result answers our research question three and

achieves our objective three which seeks to find out the extent to which equities to total assets affects the expense ratio of listed insurance companies in Nigeria, and concurs with the apriori expectation. Equities expose insurance companies to high stock market risk, and so this result implies that the sampled insurance companies are efficient in the use of their risk management tools and hedging strategies.

5. CONCLUSION AND RECOMMENDATIONS

The management of the quality of assets of insurance companies in Nigeria is expected to reduce expense ratio. The results of this study show that the effect of accounts receivables to gross premium and reinsurance recoveries; and equities to total assets ratio on expense ratio is favourable, while the effect of real estate, unquoted equities and accounts receivables to total assets ratio on expense ratio is not favourable. The study therefore concludes that, quality of assets significantly influence financial performance of insurance companies listed in Nigeria.

In the light of the findings of the study, the following recommendations are proffered:

(i) Nigerian insurance companies should device strategic measures to control their firm-specific costs in order to further lower their expense ratio. They should also embark on aggressive enlightenment of existing and potential policyholders to sensitise them on the need to take up more or new insurance policies. This would improve the insurers' premium collection. The enlightenment campaign needs to be believable and consistent, considering the depth of mistrust in the mind of the populace.

(ii) The credit policy and receivables collection practice of the insurers should be sustained, if not improved, as this will further drive down the expense ratio.

(iii) Equities to total assets ratio should be increased to a value close to the threshold in order to bring down expense ratio.

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