REINSURANCE ACTIVITIES AND SUSTAINABILITY OF INSURANCE FIRMS IN NIGERIA

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Abstract

The study assessed the impact of reinsurance activities on the sustainability of insurance firms in Nigeria. Specifically, the study examined the effect of reinsurance expenses on profit after tax and return on asset of selected insurance firms in Nigeria and also analysed the effect of reinsurance ceded ratio on profit after tax and return on asset. The study focused on five randomly selected insurance firms over the period of five years spanning from 2013 to 2017. Data were collected from the annual report of the sampled firms and analyses were conducted using pooled OLS, fixed effect and random effect estimation techniques, following descriptive and correlation analyses. Result showed that reinsurance expenses exert positive but not significant effect on profit after tax; effect of reinsurance ceded ratio is negative but not significant. Result further showed that effect of both reinsurance expenses and reinsurance ceded ratio on return on asset was negative and insignificant. The study concluded that reinsurance activities have no significant influence performance and sustainability of insurance firms in Nigeria, though increase in reinsurance expense could reflect positive impact on profit after tax, it influences on return on asset is negative. More so reinsurance cede ratio established negative impact on both profit after tax and return on asset, which underscores detrimental effect of reinsurance activities on a firm's sustainability. Hence insurance firms in Nigeria should tackle the issue of performance and sustainability as a broader corporate issue influence by more than just the level of reinsurance activities, and also ensure that reinsurance ceded ratio framework does not erode the prospect of improved return on asset at any point in time.

Keywords: *Reinsurance Activities, Sustainability, Insurance firms, Nigeria*

1.0 Introduction

Risk is a likelihood of harm, injury, obligation, misfortune or whatever other negative event that is brought about by outside and inward weakness, in both economy and monetary climate. Risk infers future vulnerability about deviation from anticipated profit and anticipated result. Risk measures the uncertainty that an investor is willing to take to realise a gain from an investment. Depending on the types of risk faced in our daily activities, we should be able to grasp the opportunity given by the risk, manage the risk using various risk management techniques in order to minimise the loss from the misfortune.

Generally, Insurance plays a pivotal role in the transfer of risk across all spheres of life by accepting various types of risk in the expectation of being able to generate an adequate return on capital from the premiums charged to indemnify the insured at the point of claims in case of any eventuality of loss, Obonyo (2016) posits that insurance companies collect premium in return for policies offered with a promise to pay claim in future if the event occurred as specified in the policy. The management of the risks strategies assumed by insurance companies is therefore, fundamental to the success of their operations.

Insurance is defined as a mechanism of transferring risk whereby individuals or corporate organisation shift some life uncertainties to other business enterprises' shoulders and in return pay premiums for the risk transfer. Insurance as a financial security tool provides economic protection from identified risks occurring or discovered within a specified period. Insurance companies underwrite the risk of other companies, and also mitigate their own risk, through reinsurance. The nature and intensity of these risks are so high that the insurance companies cannot deal with them individually and ceding companies need an extra ergonomic hedging cover for the proper handling of such risks.

Insurance covers the external risk of the firms in business and therefore utilises hedging activities like reinsurance and derivative, so that it can reduce the economic or financial risk resulting due to the imperfections of capital market (Cummins & Song, 2008). Reinsurance can be portrayed as the act of guarantors moving piece of hazard portfolio to different gatherings in order to share the burden of paying huge claims in case of loss event because of a protection guarantee. The significance of reinsurance is for an insurance agency to diminish the danger related with guaranteed policies by spreading the danger across elective organisations. The party that enhances its protection portfolio is known as the cedant or surrendering party while the party that acknowledges the surrendered piece of the expected commitment in return for a portion of the protection premium is known as the reinsurer. In creating economies, reinsurance fills in as a spine to help the protection business by permitting the immediate safety net provider opportunity to guarantee the piece of a danger that surpasses their endorsed limit.

The importance of reinsurance is for an insurance company to reduce the risk associated with underwritten polices by spreading the risk across alternative institutions. In clear terms, reinsurers are at the apex of protection market climate, on the grounds that the capacities of reinsurers might achieve monetary stability which could bring about sustainable impact in the whole economy.

Performance of the Nigerian insurance industry seems to be unsatisfactory when compared with the other industries of the economy. Over the years, the contribution of the Nigerian insurance industry to the national output appears to be below expectations as most of the players in the industry rarely optimise turnover and profit margin. Despite the existence of reinsurance regulatory framework in Nigeria, the expected benefits from reinsurance activities appear not have been felt especially in terms of profit and asset sustainability of insurance firms in the country. Furthermore, development of insurance sector seems to be poor over time, with ineffective regulatory Framework. Empirical studies on reinsurance and sustainability of insurance firms in Nigeria appear scanty and majority of the previous studies do not analyse the position of firms in the

insurance industry on the activities of reinsurance as it relates to sustainability. This study thus investigated:

(i) Effect of reinsurance expenses on sustainability of insurance firms in Nigeria

(ii) Effect of reinsurance ceded ratio on sustainability of insurance firms in Nigeria

2.0 Literature Review

Croatian insurance Act (2013) defines reinsurance as a major financial activities that allows direct insurance companies by facilitating a wider distribution of risk in order to have higher underwriting capacities Wehrhahn (2009) characterises reinsurance as a monetary exchange by which hazard is moved from an insurance agency to a reinsurance organisation (reinsurer) in return of an instalment (reinsurance expense) the author portrayed reinsurers are proficient elements that solely manage the exchange of part of the dangers and serve as an immediate back up plan for primary insurer, in return of an instalment called reinsurance charge (Wehrhahn, 2009).

Outreville (2002) characterised reinsurance as the exchange of risk from the essential guarantor, the organisation that gave the protection contract, to another safety net provider, the reinsurance organisation. According to Outreville (2002) the business put with reinsurer is known as cession of an insurance policy. An insurance agency's policyholders have no right of action against the reinsurer, despite the fact that the policyholder is most likely the fundamental recipient of reinsurance plans. As per the creator, a reinsurance contract accordingly manages the first protected occasion and the reinsurer is at risk just to the surrendering insurance agency (Outreville, 2002).

As per Patrick (2001), the reinsurer equally consents to reimburse the reinsured for a predetermined portion of indicated sorts of protection claims paid by the cedant for a solitary protection strategy or for a predefined set of strategies. An expert reinsurance organisation can be

a global association working through an auxiliary or branch workplaces in various nations, or authorising reinsurance representatives or on an immediate premise with its surrendering organisations (Patrick, 2001).

Reinsurance has an optional market nature and is the fundamental component of the non-extra security in the protection business industry (Plantin, 2006). Reinsurance has a worldwide element as shown by monetary interdependency, versatility of capital and exchanges across borders, sharing guidelines, global contest and the board; and like any item, it is liable to cycles and changes driven by inner and outer components (Plantin, 2006).

Reinsurance is separated into two fundamental sorts specifically: Facultative and Treaty reinsurance (Outreville, 2002; The Chartered Insurance Institute, 2004; Wehrhahn, 2009).

Facultative reinsurance is bought by an essential guarantor to cover a solitary danger or a square of dangers held in the essential back up plan's book of business. Facultative reinsurance entails individual single dangers (protection strategy) the guarantor wishes to guarantee base on the agreement between the reinsurer and the cedant (Outreville, 2002).

Treaty reinsurance addresses an agreement between the surrendering insurance agency and the reinsurer, who consents to acknowledge the dangers throughout some undefined time frame. Settlement reinsurance implies that the surrendering organisation and the reinsurer arrange and execute a reinsurance contract under which the reinsurer covers the predefined portion of all the protection strategies as agreed as at the time of initiating the contractual agreement.

The reinsurance agreement might commit the reinsurer to acknowledge reinsurance of all agreements inside the degree (known as "mandatory" reinsurance), or it might permit the backup plan to pick which chances it needs to surrender, with the reinsurer committed to acknowledge such dangers.

Treaty reinsurance, in contrast to the Facultative, gives an answer of a mandatory agreement by the two players where the safety net provider will undoubtedly surrender ahead of time a proper

measure of its business (Outreville, 2002). In contrast to facultative reinsurance arrangement, reinsurance builds up a more steady authoritative connection between the two gatherings. Most back up plans lean toward arrangement reinsurance since it is more affordable and simpler to oversee and direct, while facultative is less viable when managing a solitary business class or line, albeit the decision by and large relies upon the circulation of dangers between the gatherings (Outreville, 2002).

However, insurance is characterised as a system of moving danger whereby people or corporate associations shift some life vulnerabilities to other business endeavours' shoulders and consequently pay expenses for the danger move (Vaughan & Vaughan, 2007). Insurance agencies guarantee the danger of different organisations yet to moderate their own danger; these insurance agencies use reinsurance (Iqbal, Rehman & Shahzad, 2014). The nature and force of these dangers are high to the point that the insurance agencies cannot manage them exclusively and they need an additional an ergonomic supporting cover for the appropriate treatment of such dangers (Iqbal & Rehman, 2014). Protection is supposed to be a channel of monetary development by advancing long haul reserve funds, empowering gatherings of capital, and diverting those assets to useful ventures (Fatula, 2007; Oluoma, 2014). One reason for a developing pertinence of protection is the job it plays in relieving abrupt and annihilating events that can impair monetarily of people and corporate associations (Yinusa & Akinlo, 2013). Accessibility of protection administrations is vital for the solidness of the economy as business associations can face more challenges over the span of their activities.

In the advanced period, hazard minded people and associations with high danger profile look for satisfactory insurance against the pessimistic results that might emerge because of the presence of hazard. What is more, insurance company additionally needs security to decrease its weighty commitments, tries to move some portion of its danger weight to different associations which is reinsurers (Garven et al., 2014; Jirsarael, 2013).

As per Park and Xie (2014), as referred to in Sunday and Sunday, (2017) expressed that aside from the other dangers that insurance agencies share with other monetary organisations, like monetary danger, functional and key danger, the back up plans are presented to explicit danger which is identified with the reinsurers endorsing exercises. This danger includes the variety of genuine misfortunes from those accepted on schedule of protection evaluations. Furthermore, a portion of the dangers that guarantors guarantee are excessively huge for them to hold, In request to lessen misfortune openings, insurance agencies move part of the dangers to other danger financiers (Marijana et al., 2014). The main way insurance companies deal with the danger is by moving it to reinsurers. This empowers insurance agencies to settle misfortune experience and increase their limit, and it gives them assurance of cataclysmic misfortunes and specialised help with the endorsing exercises.

Reinsurance is protection bought by one guarantor from another insurance provider. The organisation that purchases reinsurance is ordinarily alluded to as the surrendering guarantor, or cedent, and the organisation that sells reinsurance inclusion is the reinsurer (Garven & Tennant, 2003) Reinsurance activities diminishes the change of the guarantor's treasure troves, accordingly permitting the backup plan to all the more precisely decide its capital prerequisites. In any case, conditions might emerge in which satisfactory enhancement of hazard might be hard to accomplish, in this manner restricting these conventional danger pooling game plans. For instance, misfortunes from regular and synthetic calamities do not keep the law of huge numbers since they are (by their actual nature) profoundly associated.

Insurance providers can move these risks to reinsurers and accordingly decrease their risk openness and capital necessities, permitting them to acknowledge a bigger number of dangers with a similar measure of capital (Bernard, 2013). Other than improving back up plans' capital position, reinsurance additionally empowers safety net providers to smooth profit and decrease administrative consistence costs (Adiel, 1996). In addition, reinsurance can be utilised to lessen

corporate assessment instalments and to relieve expenses (Mayers & Smith, 1982). Protection customers face legally binding execution chances, since expenses are paid ahead of time and buyers depend upon guarantors to respect their future cases (Froot, 2007). Since claims on protection strategies are by and large not tradable, shoppers ordinarily have restricted freedoms for expansion contrasted and other corporate claimholders like bondholders. As anyone might expect, the experimental proof on default hazard in protection markets demonstrates that protection costs are very delicate to varieties in back up plan default hazard.

Empirical Review

Aduloju and Ajemunigbohun (2017) examined reinsurance and execution of the surrendering organisations in Nigerian utilising essential and auxiliary information and found out that reinsurance buy significantly jack up the guarantors' premium. On the worldwide front, Vladimir and Boris (2012) concentrated on contemporary patterns in the protection business with spellbinding strategy for investigation and inferred that the protection area is innately described by the incorporation processes. The investigation of Marijana, Marija and Kovac (2014) zeroed in on company's particular qualities and reinsurance of Croatian insurance agencies, and result uncovered that insurance agencies' influence emphatically reinsurance interest. Marcelo and Felipe (2010) in their review inspected the protection business in Brazil, utilising elucidating strategy for examination and presumed that a specific consideration is given to administrative changes, showing what they advanced because of macroeconomic shocks that meant for the Brazilian economy during this period.

Anila (2015) analysed the determinants of monetary execution of the insurance agencies in Albania utilising cross sectional time series information and uncovered that influence and hazard have adverse consequence, while substance emphatically affects the monetary exhibition of these organisations. Mojekwu and Iwuji (2011) examined the impact of macroeconomic variables and

power supply on Nigeria manufacturing sector revealed that power supply positively and significantly affect capacity utilisation while inflation rate and interest rate had negative impact on capacity utilisation, Gonga and Sasaka (2017) concentrated on the determinants of financial performance of insurance firms in Nairobi County utilising both essential and optional information, and inferred that protection firms had fluid speculations which assisted them with settling claims particularly if their guaranteeing pay cannot cover claims. A desultory report by Piljan, Cogoljevic and Piljan (2015) explored the job of insurance agencies in monetary market and presumed that resources of protection associations comprise the right of possession on ardent and mobile resources, money, protections and other property privileges. Mwangi and Murigu (2015) inspected the determinants of monetary execution overall insurance agencies in Kenya: utilising different straight relapses and presumed that the higher the influence, value capital and the board capacity the better the monetary execution of general back up plans in Kenya.

Fadun and Shoyemi (2018) reviewed insurance speculation reserves and financial development in Nigeria and uncovered that there is a solid positive connection between Nigeria's monetary development and complete protection venture. Guglielmo, Mario and Xuan (2017) investigated the determinants of bankruptcy hazard for general protection firms in the UK and uncovered that most conventional danger factors are huge determinants of the indebtedness hazard of safety net providers. Arruda (2018) analysed the protection business' part in manageable turn of events and trade and presumed that the objective of protection industry is not to just help monetary success, yet in addition cultivate shopper trust through industry wide exposure. Tesfaye (2017) analysed the components influencing monetary execution of using Ethiopian insurance agencies, utilising auxiliary information, and uncovered that slack GDP rate and current expansion altogether affect ROA while the slack swelling and conversion standard had negative and huge impact. In Kenya, Wasike (2016) examined the determinants of productivity in the protection area utilising essential information, and set up that the free factors affected benefit up to critical degree of 90.1% and

accordingly demonstrated to be more compelling device of foreseeing and estimating benefit. Ahmed (2016) analysed the impact of capital size on the productivity of recorded protection firms in Nigeria and presumed that capital base alone may not make a sound protection industry, the protection area can extend the market and increment net premium procured which thus will prompt higher benefit.

3.0 Methods

This study made use of longitudinal research design which covers a set of selected cross-sectional units over the period of time understudied. The population of this study comprises all the insurance firms quoted on the Nigeria stock exchange. This study made use of random sampling technique, in which a total of five insurance firms (Africa Alliance PLC, FBN Insurance PLC, AIICO Insurance PLC, Niger Insurance PLC and Standard Alliance PLC) were random selected from the quoted insurance firms based on the availability and accessibility of updated data required as at the time of the study; Random sampling technique was used in this because this technique allocates equal chances for each firm in the population.

Model Specification

This study adapted the model used by Soye and Adeyemo 2017) to evaluate the impact of reinsurance mechanism on insurance companies sustainability in Nigeria. The adapted model specified sustainability measured in terms of return on asset (ROA), as a function of reinsurance mechanism proxied by Net Retention Ratio (NRR), Net Claim Ratio (NCR), and Net Commission Ratio (NCR) and reinsurance ceded ratio (RCR). For simplified representation, the model used by Soye and Adeyemo, (2017) is presented in equation 1 below:

$$ROA_{it} = \alpha_0 + \alpha_1 NRR_{it} + \alpha_2 NCR_{it} + \alpha_3 NCR_{it} + \alpha_3 RCR_{it} + \varepsilon_{it} - - - - - equ(i)$$

This study modified the above model in equation (1), and specified sustainability of insurance firms measured in terms of both profit after tax (PAT), and return on asset (ROA) as a function of

reinsurance activities measured in terms of reinsurance expense (RE) and reinsurance ceded ratio (RCR), alongside firms' size as a control variable. The two models for this study are presented in functional and linear forms below:

$PAT = f(RE, RCR, FZ)$

$ROA = f(RE, RCR, FZ$

The models are specified in linear form as:

$PAT_{it} = \alpha_0 + \alpha_1 RE_{it} + \alpha_2 RCR_{it} + \alpha_3 FZ_{it} + \varepsilon_{it} - - - - - - - - equ(ii)$

$ROA_{it} = \alpha_0 + \alpha_1 RE_{it} + \alpha_2 RCR_{it} + \alpha_3 FZ_{it} + \varepsilon_{it} - - - - - - - - - - equ(iii)$

Where: PAT=Profit after Tax**,** ROA=Return on asset, RE=Reinsurance Expense, RCR= Reinsurance Ceded Ratio**,** FZ=Firm's Size**,** U=Stochastic error term, i = cross-sectional variable from 1,2, 3,……. 5**,** t = time series variable form 1, 2, 3, …… 5

α_0, α_1, α_2, α_3 are parameter estimates corresponding to the explanatory variable and the constant term, while ε_{it} is the idiosyncratic error term

Description of Variable, Source of Data and Method of Analysis

Data for this study were collected from annual reports of firms selected for the study over the period of time selected for the study. Profit after Tax (PAT) is annual profit after all tax expenses had been deducted; Return on Asset (ROA) is the annual return on asset calculated as percentage of profit after tax to total asset; Reinsurance Actual Expense (RE) is the total actual amount of outward reinsurance activities for a specific financial year; Reinsurance ceded ratio is the portion of risk that a primary insurer passes to a reinsurer. It is calculated as the percentage of reinsurance expense to net premiums income; Firms Size (FS) is a measure of the size of the firms, as calculated as natural log of the total asset. These variables are sourced from the profit & loss account and balance sheet account as found in the annual reports of insurance firms sampled in the study.

This study made use of both descriptive and inferential techniques of analysis. Descriptive analysis will cover means, standard deviation minimum and maximum values of variables included in the model for the study. Inferential analyses that will be employed in the study will include correlation analysis, pooled OLS estimation, fixed effect estimation and random effect estimation, alongside post estimation test such as restricted F-test, Hausman test, cross-sectional dependence test, autocorrelation test, and heteroscedasticity test.

4.0 Results

Table 1: Result of Correlation Analysis

	PAT	ROA	RE	RCR	FZ
PAT	1.0000				
ROA	0.7753	1.0000			
RE	0.3066	0.1659	1.0000		
RCR	-0.0478	-0.0775	0.6814	1.0000	
FZ	0.5131	0.4442	0.6577	0.1865	1.0000

Source: Author's Computation, (2019)

Correlation result presented in table 1 revealed positive Correlation between profit after tax and reinsurance expenses with correlation coefficient of 0.3066, while correlation between profit after tax and reinsurance ceded ratio is negative with reported value of -0.0478. Correlation between profit after tax and firms' size is positive with value of 0.5131. Result showed that there is positive correlation between profit after tax and reinsurance expenses but negative correlation with reinsurance ceded ratio with reported values of 0.1659 and -0.0775 respectively. Correlation between firm's size and return on asset is positive at 0.4442. Correlation between pairs of variables used in the study stood at 0.6814, 0.6577, and 0.1865 for RE and RCR, RE and FZ, RCR and FZ respectively. Overview of the reported correlation coefficient revealed that there is no evidence of

the presence of multi-collinearity amidst the explanatory variables as reflected by the weak magnitude of the correlation between pairs of variables included in models estimated in the study

Table 2: *Estimation Result (model 1)*

Coefficient	**Pooled**	**Prob**	**Fixed**	**Prob**	**Random**	**Prob**
C	-26079.74	0.150	-65465.4	0.025	**-26079.7**	**0.135**
RE	.3962401	0.570	-.6448272	0.644	**.3962401**	**0.564**
RCR	-5123.982	0.349	-6607.961	0.260	**-5123.98**	**0.338**
FZ	1593.976	0.140	3811.036	0.025	**1593.97**	**0.125**
	R-square=0.4958 Adj R-square=0.4652 F-statistics=12.94 Prob(F-stat)=0.0068		R-square=0.4662 Adj R-square=0.2464 F-statistics=12.12 Prob(F-stat)=0.0074		**R-square=0.6463** **Waldchi2(5)= 8.82** **Prob> chi2 =0.031**	
	Restricted F-test=4.36 ($p < 0.05$)					
			Hauman Test =2.25 ($P > 0.05$)			

Wald test=1.9540 (P > 0.05); *Wooldridge test*=2.8358(p > 0.05); *Pesaran test*=-0.903(p> 0.05)
NOTE: ** connote significance at 5% level of significance.*
Source: *Authors' Computation, (2021)*

Table 2 showed results of estimations using pooled OLS, fixed effect and random effect techniques, alongside restricted F-test and the Hausman test. Evaluating the result for consistency and efficiency, it was established that for all the models estimated in the study the most consistent and efficient estimation result is the random effect estimation. As presented in table 2, result showed that when heterogeneity effect across firms over time is incorporated into the error term of the model, effect of reinsurance expenses on profit after tax is positive but not significant, with reported coefficient estimates of .3962401 (p=0.564 > 0.05), while effect of reinsurance ceded ratio is negative but not significant, with reported coefficient estimates of -5123.982(p=0.338 >

0.05). Reported R-square for random effect estimation presented in table 5 stood at 0.6463 which implies that about 64.6% of the systematic variation in profit after tax can be explained by the explanatory variable when heterogeneity effect is incorporated into error term of the model.

Table 3: *Estimation Result (model 2)*

Coefficient	**Pooled**	**Prob**	**Fixed**	**Prob**	**Random**	**Prob**
C	-125.2274	0.071	-198.9728	0.063	**-151.491**	**0.038**
RE	-.0009171	0.727	-.0033129	0.529	**-.001702**	**0.551**
RCR	-5.87238	0.774	-4.374854	0.840	**-4.13935**	**0.829**
FZ	7.481593	0.071	11.43019	0.066	**9.06659**	**0.038**
	R-square=*0.4286* Adj R-square=*0.4184* F-statistics=*12.07* Prob(F-stat)= *0.0042*		R-square=0.4197 Adj R-square=0.1807 F-statistics=11.76 Prob(F-stat)= 0.0021		**R-square=0.6262** **Wald chi2(5)= 15.2** **Prob> chi2 =0.004**	
	Restricted F-test=6.40 ($p < 0.05$)					
			Hausman Test =0.56 ($P > 0.05$)			

Wald test=1.7805 (P > 0.05); *Wooldridge test*=0.3011 (p > 0.05); *Pesaran test*=-1.029(p> 0.05)
NOTE: ** connote significance at 5% level of significance.*
Source: *Authors' Computation, (2021)*

Table 3 showed results of estimations using pooled OLS, fixed effect and random effect techniques, alongside restricted F-test and the Hausman test. The most consistent and efficient result revealed that the effect of both reinsurance expenses and reinsurance ceded ratio is negative and insignificant with reported coefficient estimates of -.0017028(p=0.551 > 0.05) and -4.139353(p=0.829 > 0.05). Reported R-square for random effect estimation presented in table 3 stood at 0.6262 which implies that about 62.6% of the systematic variation in profit after tax can

be explained by the explanatory variable when heterogeneity effect is incorporated into error term of the model.

Discussion

Most consistent and efficient estimation to track the effect of reinsurance expenses and reinsurance ceded ratio on profit after tax as presented in the analysis revealed that reinsurance expenses exert insignificant positive effect on profit after tax. In specific terms result showed that for every one million naira increase in reinsurance expenses profit after tax will increase insignificantly by 0.3962401 million naira (i.e. 396, 240.1 naira). On the other hand, result showed that reinsurance ceded ratio exert insignificant negative effect on profit after tax, with coefficient estimate of -5123.982($p=0.338 > 0.05$), which connote that for every unit increase in the ratio of reinsurance ceded ratio, profit after tax will decline insignificantly by 5123.98 million naira.

Estimation result presented in table 3 being the most consistent estimation result for analysing the effect of reinsurance expenses and reinsurance ceded ratio on return on asset showed that both reinsurance expenses and reinsurance ceded ratio exert negative and insignificant effect on return on asset with reported coefficient estimates of -0.0017028 ($p=0.551 > 0.05$) and -4.139353 ($p=0.829 > 0.05$). In clear terms result showed that for every unit increase in reinsurance expenses return on asset will decline by 0.0017028, while for every unit increase in reinsurance ceded ratio return on asset will decline by 4.139353.

Discoveries made in this study point to the fact that reinsurance activities of insurance firms measured in terms of reinsurance expenses and reinsurance ceded ratio have insignificant effect on both profit after tax and return on asset of insurance firms in Nigeria. By implication the result reflects in empirical terms that transfer of risk liability by an insurance firm (primary insurer) to a reinsurer does not significantly depict the level of sustainability of the firm in the same period. Summary of discoveries made in this study is consistent with the findings of Tomislava and Fran

(2013) that insurance companies with higher share of premiums ceded to reinsurance have lower level of profitability measured by ROA indicator. Findings of this study are also in congruence with the position of Soye and Adeyemo (2017) that net retention ratio and ratio of ceded reinsurance are mildly correlated with insurance profitability (ROA).

5.0 Conclusion and Recommendations

From discoveries made in the study, there is a valid statistical evidence to conclude that reinsurance activities have no significant influence on performance and sustainability of insurance firms in Nigeria. Though increase in reinsurance expense could reflect positive impact on profit after tax, its influence on return on asset is negative. More so reinsurance ceded ratio established negative impact on both profit after tax and return on asset, which underscores detrimental effect of reinsurance activities on a firm's sustainability through higher return on asset in the same period. The discoveries made in this study recommend that policies that could increase reinsurance activities should be embraced so as to improve the performance and sustainability of insurance firms. Insurance firms in Nigeria should tackle the issue of performance and sustainability as a broader corporate issue influence by other factors than just the level of reinsurance activities. Insurance firms should only consider reinsurance as part of holistic measures for maximising performance position with reduced risk claim exposure and not the only option in the matter of performance and sustainability, and finally, insurance firms should also ensure that reinsurance ceded ratio framework does not erode the prospect of improved return on asset at any point in time, as this could be detrimental to their sustainability.

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