Nexus between Household Savings and Gross Capital Formation in Nigeria

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Abstract: This study addresses the nexus between household savings and gross capital formation in Nigeria within the periods of 1990 and 2020. After extracting data from the World Development Indicators, the data were analyzed within the techniques of Fully Modified Least Squares and Granger causality. Consequently, the following conclusion among others are drawn from this study. First and foremost, household savings and gross capital formation have a positive and significant relationship in Nigeria. But, total credit to private sector and capital formation have a significant inverse relationship. FDI, broad money supply and interest rate have an insignificant direct relationship with capital formation. But, the case of exchange rate shows an insignificant inverse relationship with capital formation. Similarly, capital formation and household savings have a uni-directional causality, which flows from capital formation. Also, gross capital formation Granger causes interest rate and total credit to private sector. Therefore, this study submits that household savings contributes both positive and significant influence on gross capital formation in Nigeria in one hand, and gross capital formation is a strategic factor that propels household savings in Nigeria on the other hand. In the light of the above findings, this study recommends that the Nigerian policymakers should embark on a favourable monetary policy that will spur broad money supply, interest rate, exchange rate and credit to private sector in the direction of capital accumulation. In the same page, the policy that will promote saving attitude of the Nigerians should be embarked on the economy will enjoy a sustainable capital accumulation.

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1. Introduction

The importance of household savings cannot be undermined in the Sub Saharan Africa because investment is a critical driver of economic growth which its primary source is household savings. In the past decades, a huge number of countries have experienced a severe dwindling of household savings (Prinsloo, 2000). Evidence from the extant literature attests to the recent debate concerning the influence of household savings on capital formation in the developing economies. The popular opinions argue that savings motivates a rise in capital formation which is a principal engineer of sustainable economic growth. For instance, according to IMF (2015) reports, emerging economies such as Thailand, the Philippines, Indonesia and Vietnam witnessed a substantial accumulation of capital due to domestic savings.

However, the current situation of household savings in Nigeria indicates that this variable is relatively low (World Bank, 2019). This implies that that low household saving rates may constitute an impediment for economic growth in Nigeria since low savings constrained formation of capital. In the presence of an improved economic performance accompanied by higher capital formation, the low domestic savings will create an insufficient investment to sustain the finance of higher investment, and thereby pushing economy into current account deficit. Despite the fact Solow model stipulates that accumulation of capital stock is a function of savings, various empirical studies regarding domestic savings and capital formation in both advanced and developing countries have generated a lot of debates. For example, in 21 industrialized economies, Feldstein and Horioka (1980) reported a strong correlation between domestic savings and capital accumulation. Abdul (2020) submitted that household savings contributed a significant impact on capital formation in Burundi and Kenya, but reverse was the scenario in the East African Community (EAC). The situation of South Africa, according to Getachew (2015) showed that household savings was a paramount condition for capital formation in the country. However, studies are grossly inadequate to establish the nexus between household savings and gross capital formation in Nigeria in the recent time. Against this backdrop, this study has been designed to fill in the gap. As such, this study examined the relationship between household savings and gross capital formation in Nigeria between 1990 and 2020.

The structure of this paper is designed in the following ways; in introduction, the background information of the study and problem of the study were discussed. Meanwhile, literature review was supplied in the sector two. Section three houses both material and methodology of the study, and in section four, analysis of the study, discussion and policy recommendation were presented respectively.

2. Literature Review

In 2019, Akani and Ibibe looked at the effect of domestic bank savings on capital creation in Nigeria. The study's estimation of the functional connection in the model using the ordinary least square regression analysis approach. The empirical results show that demand deposits, by nature, aren't focused on middle to long-term loans to the real sector, which goes to show that while credit liquidates a society, demand deposits have a positive yet insignificant relationship to capital formation in Nigeria, within the study period. The regression result also revealed that time deposits have a positive relationship to capital formation, whereas savings deposits have a negative relationship. Therefore, we recommend that banks increase the efficiency with which they raise and distribute capital to business owners in the real estate industry. The policy relevance of this is that regulatory agencies should keep pursuing financial system liberalization efforts to prevent any kind of shock to the system.

In the Nigerian Delta state local government area of Isoko North, Ike and Umuedafe (2013) investigated the factors that influence capital accumulation and savings. A total of 150 homes were randomly chosen from seven of the local government area's 13 villages. Structured questionnaires were used to collect the study's data, which were then analyzed using both inferential statistics like multiple regression analysis and descriptive statistics like means, percentages, and frequency distribution. The amount of savings among rural farmers was shown to depend on their farm income, nonfarm income, and years of participation in a savings program, age, and distance from formal financial institutions. The findings also revealed that most rural farmers use non-financial capital accumulation as a technique for saving and are driven to do so in order to boost output. Low productivity and limited access to financial credit were the primary barriers to saving money. The research consequently advises the government to create a platform that will increase accessibility of credit by supporting formal and informal financial institutions' activities in rural regions in order to further boost rural farmers' savings in the study area.

Aidoo-Mensah (2018) emphasized the idea of saving as well as a few empirical research on the links between saves and income, their conclusions, and the economic ramifications of those submissions. The significance of the study comes from the evidence that savings of household have made a significant contribution to the prosperity of various economies, and that the factors influencing these savings have been well studied. Therefore, knowing the theoretical foundations of the savings-income correlations would open the door for more research to be done in Ghana and other developing nations, repeating similar success stories. This is due to the fact that a better comprehension of the savings-income connection would aid in the creation of suitable policies for the mobilization of savings, enhancing local capacity for capital formation. Furthermore, a thorough understanding of Ghana's savings-income phenomenon, particularly at the level of rural households, will give the monetary

policymakers a good information concerning the operation of the rural economy and how to improve on this sector to with a view to enabling its linkage into the major financial structure of the country. The relationship between savings and private capital creation in Nigeria from 1982 to 2014 is examined by Ekesiobi et al. in 2016. It makes use of the OLS method, and the mechanism of error correction to reduce the likelihood of predicting erroneous relationships while preserving essential long-term data. According to research, savings have a negative and large impact on gross fixed private capital creation, whereas capital expenditure and inflation rate have negative but minor effects. Gross fixed private capital creation was shown to be positively and significantly impacted by FDI, RGDP, and Prime Lending Rate, of which its previous value(s) of such capital formation possessing a direct and substantial impact on the current value (s). The report makes several recommendations, including promoting a culture of saving and cultivating an environment that is supportive to investing.

The effect capital accumulation has on economic growth in Nigeria is examined by Ajose and Oyedokun (2018). To ascertain the relationship between capital formation and economic expansion in Nigeria, the researchers used trend analysis and sophisticated econometric analyses. To ascertain whether the variables are stationary or not, the unit root test was used to the variables employed in the investigation. The co-integration test was applied to the model to ascertain the long-term link between capital production and economic development in Nigeria from 1980 to 2016. The connection between capital production and economic growth in Nigeria from 1980 to 2016 was also examined using the Granger causality test. The findings show that while all of the models were stationary at the first difference, none were stationary at the level. The results also show a significant long-term linkage between the variables examined and a causal relationship between capital creation and economic growth in Nigeria across the research period. The results also revealed a slight, insignificant negative correlation between capital creation and Nigerian economic growth. The report recommends that policymakers in Nigeria implement specific investor-friendly measures in order to encourage, promote, and draw in more capital inflows (whether they be official or private inflows) and to foster an environment that is supportive and enabling for the expansion of gross fixed capital formation. It's important to downplay speculative ventures and put money into real economic areas.

Osundina & Osundina study the topic of low savings and capital accumulation as it relates to economic growth in Nigeria (2014). The paper covers many methodological issues that underpin these macroeconomic aggregates during a 33-year period, from 1980 to 2012. The link between savings, capital accumulation, and growth in Nigeria is also discussed in terms of its policy consequences. The growth, investment, and savings models were employed in the study. The savings model shows that while investment and gross domestic product have positive and significant effects on saves in Nigeria, inflation has a negative and little influence. Although the effect is small, the loan rate has a favorable influence on savings. Investment has a positive but

negligible impact on economic growth in Nigeria, whereas savings have a positive and big impact on it. In addition, saving has a positive and significant impact on investment. The investment climate and measures to control inflation in Nigeria must be put in place in order to maintain macroeconomic stability and economic growth. Special attention should be paid to economic and sociocultural shocks especially.

The impact of capital production on economic growth in Nigeria was studied by Nweke et al. in 2017. The study's particular goals are to ascertain if capital formation has any discernible influence on economic growth in Nigeria and to ascertain the direction of any meaningful causal link between the two. In addition to the VEC granger causality test, the study used co-integration and a vector error correction model to analyze the variables included in the model. Two (2) co-integrating equations showed the results of the data analysis that the dependent and independent variables had a consistent long-term relationship. Gross capital formation (GCF) has beneficial, though modest, short- and long-term effects on real gross domestic product (RGDP), according to the VECM. The results of the causality test show that there is a bidirectional causal relationship between real gross domestic product (RGDP) and gross capital formation since both p-values are less than 0.05. There was a significant negative association between government capital expenditure (GCE) and real gross domestic product (RGDP) in both the short- and long-term (GCF). With p-values for GCF of 0.0007 and 0.0000, respectively, it can be seen that there is a two-way causal association between GCF and GCE (government capital expenditure). The research's conclusion is that gross capital formation did not significantly affect Nigeria's economic development throughout the studied period. The report recommends the following actions based on its results and policy implications: the government and the private sector should work deliberately together to create an environment that encourages capital investment in the economy. The public and private sectors should work together to solve the issue of corruption in the economy, in addition to bolstering public statistical agencies to ensure that all private investments are tracked and monitored.

Savings' effects on economic growth in Nigeria were assessed by Nwonye et al. in 2022. The study focused on the impact of total savings, private consumption spending, gross fixed capital creation, and core lending to the private sector on Nigeria's GDP. The study used data from the CBN statistics bulletin for a ten (10) year period from 2011 to 2020. The data from the sources were studied using multiple regression analysis, and the findings indicate that total savings have a positive and substantial impact on Nigeria's gross domestic product. Additionally, it was shown that private consumer spending had a small but negative impact on Nigeria's GDP. The study also showed that Nigeria's gross fixed capital creation has a negative and considerable impact on the country's GDP. Additionally, it was noted that Nigeria's gross domestic product is positively and significantly impacted by core lending to the private sector. Based on the findings, the research suggests that the government create a stable and

favorable climate to encourage domestic saving, which will aid in boosting Nigeria's rate of economic growth. Through monetary policy, the government should raise the deposit rate of Nigeria's deposit money institutions. The country's financial industry has to be transformed by the government. To encourage domestic savings from small depositors, the government should establish enabling conditions.

In South Africa, from 1960 to 2013, Gatachew (2021) investigates the causal link between household saving and economic development. The long-run connection is examined with application of the VAR-based Johansen co-integration test, and the causal links are examined using the Granger causality test. When gross fixed capital formation (GFCF) is incorporated into the model as an exogenous variable, the Johansen co-integration test reveals that there is one cointegrating vector. This suggests that there should be at least one direction of causation in the tri-variate model in the saving-growth model with GFCF acting as an exogenous variable. According to the Granger causality test, there is a unidirectional causal relationship between gross saving and economic growth and gross fixed capital creation that is 5% statistically significant for both the second and third lags of the estimation. This result suggests that the nation's economic policy makers concentrate on accelerating domestic saving and economic development in order to improve gross capital creation.

Simleit et al. (2018) utilize a vector error-correction model to investigate the numerous factors that affect family savings (VECM). According to the findings, a wealth impact, rising business cycle, and interest rates all help to explain why family savings have decreased. The efficiency of exploiting the fiscal situation of the South African government to raise savings is significantly impacted by the existence of a partial offset between family savings and government savings.

Gries and Van Dung (2014) look at how insurance and social network nexuses affect family savings and the building of productive capital in rural Vietnam. We examine the problem in two dimensions—stocks and flows—and take shock exposure into account. We use the instrumental variable technique and, in contrast to earlier research, take into consideration the endogeneity of all relevant factors. According to the findings, social network nexus effects families more in "ex ante" than "ex post" situations. The impacts of the insurance nexus outweigh those of the social network nexus in both households groups. We also discover that in the case of stocks, the cautious perspective is valid the assets that are liquid but not for the assets that productive in nature.

3. Methodology

An ex-post facto research design was considered to fit this research work that focuses on the nexus between household savings and gross capital formation in Nigeria. This is because this study aims at exploring a viable relationship, and at the same time predicting the variation in dependent variable using the set of explanatory variables. In the same vein, the study utilizes data coming from a secondary source, namely, the World Bank Development Indicators. These data span from 1990 to 2020.

3.1. Model Specification

In employing the appropriate model to suit the empirical analysis of this study, drawing an insight from Olanipekun *et al*. (2022), Okoh *et al*. (2021) and Ekesiobi *et al.* (2016) becomes imperative as their models are adapted in connection with the objective of this study as follows. Functionally, this study`s model is illustrated in this form;

Gross Capital Formation = f (Household Savings)   (1)

When some control variables were introduced into model 1, it changed its structure as this

GCF = f (HSV, BMS, EXR, FDI. ITR, TCP)   (2)

The model is consequently linearized by using double log, which lead to the emergence of equation three (3) thus;

$LogGCF_t = \emptyset + \beta_1 LogHSV_t + \beta_2 LogBMS_t + \beta_3 EXR_t + \beta_4 LogFDI_t + \beta_5 LogITR_t + \beta_6 LogTCP_t + \mu_t$ (3)

However, this study also examined the direction of causality among gross capital formation and household savings following the Granger causality model adapting from the works of Aderemi *et al*. (2018), Opele *et al*. (2022), Aderemi *et al*. (2019) and Lawal *et al*. (2022) in the following ways:

$HSV_t = \beta_0 + \sum_{i=1}^{m} \beta_1 HSV_{t-i} + \sum_{j=1}^{n} \beta_2 TCP_{t-j} + \sum_{k=1}^{O} \beta_3 ITR_{t-k} + \mu_{1t}$ (4)

$TCP_t = \beta_0 + \sum_{i=1}^{m} \beta_1 TCP_{t-i} + \sum_{j=1}^{n} \beta_2 HSV_{t-j} + \sum_{k=1}^{O} \beta_3 ITR_{t-k} + \mu_1$ (5)

$ITR_t = \beta_0 + \sum_{i=1}^{m} \beta_1 ITR_{t-i} + \sum_{j=1}^{n} \beta_2 HSV_{t-j} + \sum_{k=1}^{O} \beta_3 TCP_{t-k} + \mu_{1t}$ (6)

It is instructive to enunciate that GCF stands for gross capital formation. HSV denotes household savings. BMS is broad money supply. EXR is exchange rate. FDI is net foreign direct investment inflow. ITR represents interest rate and TCP is total credit to private sector. μ_t connotes white noise error term i.e. $\mu_t \approx N (0, \sigma_t)$. Log is natural

logarithm, ∅ is intercept, $_1$ to β_6 represents the estimated parameters which their aprori expectation is positive.

4. Results and Discussion

Table 1. Descriptive Statistics

	BMS	EXR	FDI	GCF	HSV	ITR	TCP
Mean	1.0113	129.3244	1.662131	28.12903	33.22581	3.200323	10.16129
Median	2.6112	128.6517	1.552115	26.00000	32.00000	5.790000	8.900000
Maximum	3.8613	358.8108	5.790847	53.00000	59.00000	18.18000	19.60000
Minimum	5.7610	8.038285	0.195183	14.00000	16.00000	-31.45000	5.000000
Std. Dev.	1.2213	97.16654	1.205851	11.45932	12.18116	10.45934	3.545107
Skewness	0.989012	0.685839	1.824741	0.432269	0.443915	-1.368848	0.904893
Kurtosis	2.626067	2.839454	6.716303	2.035583	2.138630	5.302684	3.499848
Jarque-Bera	5.234353	2.463564	35.04243	2.166806	1.976508	16.52989	4.553352
Probability	0.073009	0.291772	0.000000	0.338442	0.372226	0.000257	0.102625
Sum	3.13E+14	4009.058	51.52605	872.0000	1030.000	99.21000	315.0000
Sum Sq. Dev.	4.46E+27	283240.1	43.62227	3939.484	4451.419	3281.935	377.0335
Observations	31	31	31	31	31	31	31

Source: Authors` (2023)

The normal distribution of the variables of this study was verified through the use of the descriptive statistics of the dataset resented in the above table. Starting from BMS in its log form, it has mean value of 1.01. This mean value is less than the standard deviation of the variable. This is an indication that the variable is largely dispersed from the mean. BMS is positively skewed with kurtosis of 2.6. This shows that the data is close to normal distribution. EXR, FDI, GCF, HSV and TCP exhibit a moderate dispersal from the mean because each of the variables possesses standard deviation that is less than the respective mean value. In the same vein, these variables are positively skewed alongside kurtosis value close to 3 with the exemption of FDI whose Kurtosis value is greater than 3. This points to the existence of normal distribution of the variables.

However, ITR has a negative skewness with kurtosis value that is greater than 3. The mean value of this variable is less than its standard deviation, this implies that the variable is largely dispersed from the mean. In a nutshell, the majority of the variables possess the characteristics that point to the fact that they obey assumption of normal

distribution. Therefore, these variables could be further engaged for econometric analysis.

Table 2. Correlation Analysis

	BMS	EXR	FDI	HSV	ITR	TCP
BMS	1.000000	0.920488	-0.449308	-0.745088	0.313566	0.542601
EXR	0.920488	1.000000	-0.403461	-0.760384	0.325280	0.556795
FDI	-0.449308	-0.403461	1.000000	0.302277	-0.314044	-0.024107
HSV	-0.745088	-0.760384	0.302277	1.000000	-0.381853	-0.685624
ITR	0.313566	0.325280	-0.314044	-0.381853	1.000000	0.422873
TCP	0.542601	0.556795	-0.024107	-0.685624	0.422873	1.000000

Source: Authors` (2023)

In order to arrest the potential multicolinearity among the regressors in the model, efforts were made to test for the pair of correlation that exists between the variables, in which its estimated results were reported in Table 2. It could be inferred from the table that it is only the pair of correlation between BMS and EXR that is little bit high, While, the rest of the correlation pairs between the variables are relatively low for the model to result in a potential multicolineriaty.

Table 3. Unit Root Test Using Augmented Dickey-Filler Test and

Variables	Level (t-statistic)	Probability	1st Diff (t-statistics)	Probability	Decision
FDI	-3.670170	0.0460			I(0)
BMS	-2.621007	1.0000	-3.679322	0.0059	I(1)
ITR	-2.976263	0.2327	-3.699871	0.0031	I(1)
EXR	-2.621007	0.3404	-3.679322	0.0003	I(1)
GCF	-2.967767	0.3850	-3.679322	0.0180	I(1)
HSV	-2.963972	0.1293	-3.724070	0.0002	I(1)
TCP	-2.967767	0.1041	-3.699871	0.0005	I(1)

Unit Root Test Using Phillip Perron Test

Variables	Level (t-statistic)	Probability	1st Diff (t-statistics)	Probability	
FDI	-3.670170	0.0460			I(0)
BMS	-2.621007	1.0000	-3679322	0.0057	I(1)
ITR	-3.670170	0.0251	-3.679322	0.0000	I(1)
EXR	-2.963972	0.3001	-2.967767	0.0003	I(1)
GCF	-2.963972	0.1282	-3.679322	0.0268	I(1)
HSV	-2.963971	0.1594	-3.679322	0.0001	I(1)
TCP	-2.963972	0.1594	-3.679322	0.0001	I(1)

Source: Authors` (2023)

Study that utilizes time series data for its analysis usually faces the problem of unit roots. This implies that there is high tendency this study is susceptible to the problem of unit root. However, if this problem is left unresolved, it could undermine the validity of the results of this study. In resolving this issue, this study tested for a stationarity property of the dataset via the instrumentality of the Phillip Perron (PP) Test and Augmented Dickey Fuller (ADF) Test in order to establish the presence or otherwise of the unit root problem in the study. Consequently, the estimated results of the unit roots test were displayed in Table 3 with the following deductions; it is only FDI that is freed from unit root problem because it is stationary at level. Meanwhile, other variables, namely, BMS, ITR, EXR, GCF, HSV and TCP do have unit root problem because these variables are stationary after first differencing.

Table 4. Johansen Cointegration

Series: BMS EXR FDI GCF HSV ITR TCP				
Lags interval (in first differences): 1 to 1				
Unrestricted Cointegration Rank Test (Trace)				
Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.870035	186.2141	125.6154	0.0000
At most 1 *	0.779722	127.0398	95.75366	0.0001
At most 2 *	0.728247	83.16679	69.81889	0.0030
At most 3	0.518532	45.38378	47.85613	0.0838
At most 4	0.446454	24.18721	29.79707	0.1926
At most 5	0.133692	7.036336	15.49471	0.5734
At most 6	0.094364	2.874424	3.841466	0.0900
Unrestricted Cointegration Rank Test (Maximum Eigenvalue)				
Hypothesized		Max-Eigen	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.870035	59.17420	46.23142	0.0013
At most 1 *	0.779722	43.87306	40.07757	0.0178
At most 2 *	0.728247	37.78301	33.87687	0.0162
At most 3	0.518532	21.19656	27.58434	0.2645
At most 4	0.446454	17.15088	21.13162	0.1650
At most 5	0.133692	4.161912	14.26460	0.8419
At most 6	0.094364	2.874424	3.841466	0.0900

Source: Authors` (2023)

In the short run, disequilibrium does occur among variables in a study due to non stationry nature of such variables. However, this disequilibrium could phase out as the relationship among the variables is approaching a long run phenomenon. In view of the above, this study examines the long run equilibrium among household savings and capital formation variables. As reported in Table 4, the Johansen Cointegration Test has nothing less than 7 cointegration vectors among these variables. This implies that the phenomenon of long run equilibrium exists among the variables used to depict household savings and capital formation.

Table 5. Regression Estimates of Household Savings and Capital Formation in Nigeria

Dependent Variable: GFC				
Method: Fully Modified Least Squares				
Sample: 1990 2020				
Included observations: 31				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
FDI	0.736267	1.124280	0.654879	0.5188
BMS	2.95E-13	2.40E-13	1.229979	0.2306
TCP	-1.166158**	0.471290	2.474397	0.0208
HSV	0.505848**	0.160704	3.147688	0.0044
ITR	0.071569	0.122722	0.583179	0.5652
EXR	-0.044820	0.029993	1.494342	0.1481
R-squared	0.782831			
Adjusted R-squared	0.728538			

*Source: Authors` (2023) **Significant at 5%*

The regression estimates of household savings and capital formation in Nigeria were reported in Table 5 as thus. The coefficients of total credit to private sector (TCP) and exchange rate (EXR) did not follow the aprori expectation like the other variables. The R-squared of 0.78 implies that household savings alongside other control variables jointly explained about 78% variation in capital formation as the model left 22% unexplained due to random error. This is an indication that this model is relatively good for this empirical study.

Firstly, considering the variables with significant coefficient, household savings and capital formation have a positive and significant relationship in Nigeria. A unit change in household savings increases capital formation by 0.50% in the country. However, total credit to private sector and capital formation have a significant inverse relationship. As such, a unit change in total credit to private sector results in a reduction of capital formation by 1.16%.

Meanwhile, other control variables, namely, FDI, broad money supply and interest rate have an insignificant direct relationship with capital formation. But, exchange rate shows an insignificant inverse linkage with capital formation.

Therefore, it could be submitted in this study that household savings contributes both positive and significant influence on capital formation in Nigeria. It is important to stress that the finding in this study contradicts the arguments of Akani & Ibibe (2019) and Ekesiobi *et al.* (2016) in related studies.

Table 6. Granger Causality among Household Savings, Interest Rate Capital Formation and Total Credit to Private Sector

Pairwise Granger Causality Tests			
Sample: 1990 2020			
Lags: 2			
Null Hypothesis:	Obs	F-Statistic	Prob.
HSV does not Granger Cause GCF	29	1.81920	0.1838
GCF does not Granger Cause HSV		6.38648	0.0060**
ITR does not Granger Cause GCF	29	0.70143	0.5058
GCF does not Granger Cause ITR		3.39549	0.0503***
TCP does not Granger Cause GCF	29	0.46111	0.6361
GCF does not Granger Cause TCP		3.51860	0.0457**
ITR does not Granger Cause HSV	29	0.28608	0.7537
HSV does not Granger Cause ITR		1.89967	0.1714
TCP does not Granger Cause HSV	29	1.74479	0.1961
HSV does not Granger Cause TCP		0.27531	0.7617

*Source: Authors` (2023) **Significant at 5%, ***Significant at 10%*

Despite the fact that a long run relationship had been earlier established between household savings and capital formation, but this relationship lacks the capacity to show the direction of causality among the various important variables in the study. In

view of the above, this study estimated the direction of causality among household savings, interest rate capital formation and total credit to private sector, in which its results were presented in Table 6 as follows; firstly, capital formation and household savings have a uni-directional causality, which flows from capital formation. In the same vein, capital formation Granger causes interest rate and total credit to private sector. This implies that capital formation is a strategic factor that propels household savings in Nigeria.

5. Summary, Conclusion and Recommendation

This study addresses the nexus between household savings and capital formation in Nigeria within the periods of 1990 and 2020. After extracting data from the WDI, the data were analyzed within the techniques of Fully Modified Least Squares and Granger causality. Consequently, the following conclusion among others are drawn from this study. First and foremost, household savings and capital formation have a positive and significant relationship in Nigeria. But, total credit to private sector and capital formation have a significant inverse relationship. FDI, broad money supply and interest rate have an insignificant direct relationship with capital formation. But, exchange rate shows an insignificant inverse linkage with capital formation.

Similarly, capital formation and household savings have a uni-directional causality, which flows from capital formation. Also, capital formation Granger causes interest rate and total credit to private sector. Therefore, this study submits that household savings contributes both positive and significant influence on capital formation in Nigeria in one hand, and capital formation is a strategic factor that propels household savings in Nigeria on the other hand. In the light of the above findings, this study recommends that the Nigerian policymakers should embark on a favourable monetary policy that will spur broad money supply, interest rate, exchange rate and credit to private sector in the direction of capital accumulation. In the same page, the policy that will promote saving attitude of the Nigerians should be embarked so the economy will enjoy a sustainable capital accumulation.

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